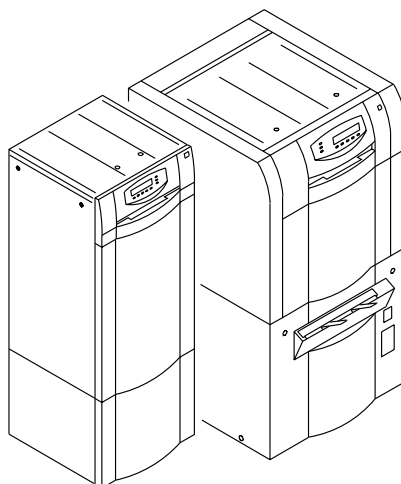


INSTALLATION INSTRUCTIONS
for the
***Kodak* MINILOADER 2000**
Service Code: 3477
and the
***Kodak* MINILOADER 2000P**
Service Code: 3479
and the
***Kodak Min-R* MAMMOGRAPHY INTEGRATED**
PROCESSOR
Service Code: 4357



Important

Qualified service personnel must install this equipment.



H191_0084HC



HEALTH IMAGING

PLEASE NOTE The information contained herein is based on the experience and knowledge relating to the subject matter gained by Eastman Kodak Company prior to publication.

No patent license is granted by this information.

Eastman Kodak Company reserves the right to change this information without notice, and makes no warranty, express or implied, with respect to this information. Kodak shall not be liable for any loss or damage, including consequential or special damages, resulting from any use of this information, even if loss or damage is caused by Kodak's negligence or other fault.



This equipment includes parts and assemblies sensitive to damage from electrostatic discharge. Use caution to prevent damage during all service procedures.

Table of Contents

Description	Page
Safety	4
Necessary Materials	7
Tools	7
Installation	9
Installing the Kodak MINILOADER 2000	9
Unpacking the Equipment	9
Checking the Operation of the MINILOADER 2000	13
Installing the Kodak MINILOADER 2000P	14
Unpacking the Equipment	14
Installing the Equipment on the MINILOADER 2000 or the MINILOADER 2000P	20
Doing the Electrical Setup on the MINILOADER 2000 or the MINILOADER 2000P	24
Doing the Setup for the MINILOADER 2000 and MINILOADER 2000P	28
Setting the "Time" and "Date"	28
Changing the Unit Data	29
Setting the "Parameters"	30
Clearing the "Memories"	32
Installing the KODAK Min-R MAMMOGRAPHY INTEGRATED PROCESSOR	33
Unpacking the Equipment	33
Setting the Frequency and Cycle Speed	35
Connecting the Plumbing	37
Connecting the REPLENISHMENT TANKS and the SILVER RECOVERY UNIT	38
Checking the Negative Pressure	39
Doing the Electrical Setup	40
Setting the Power Frequency and Voltage	40
Setting the SWITCH S1 on the 135 BOARD	42
Connecting the POWER CABLE	43
Preparing the PROCESSOR	45
Checking the CLAMPS and TANKS	45
Filling the TANKS	46
Installing the RACKS	48
Leveling the PROCESSOR	49
Checking the Replenishment Rates	50
Adjusting the REPLENISHMENT PUMP	51
Installing the MINILOADER 2000P to the PROCESSOR	54
Setting "The Time to Feed 24 cm"	57
Setting the PROCESSOR INTERFACE SENSOR B9	59
Doing the Checkout for the PROCESSOR	60
Setting the Developer Temperature	64
Checking the Operation of the PROCESSOR and the MINILOADER 2000P ..	65

Section 1: Safety

This information defines the safety and information icons used in this publication.

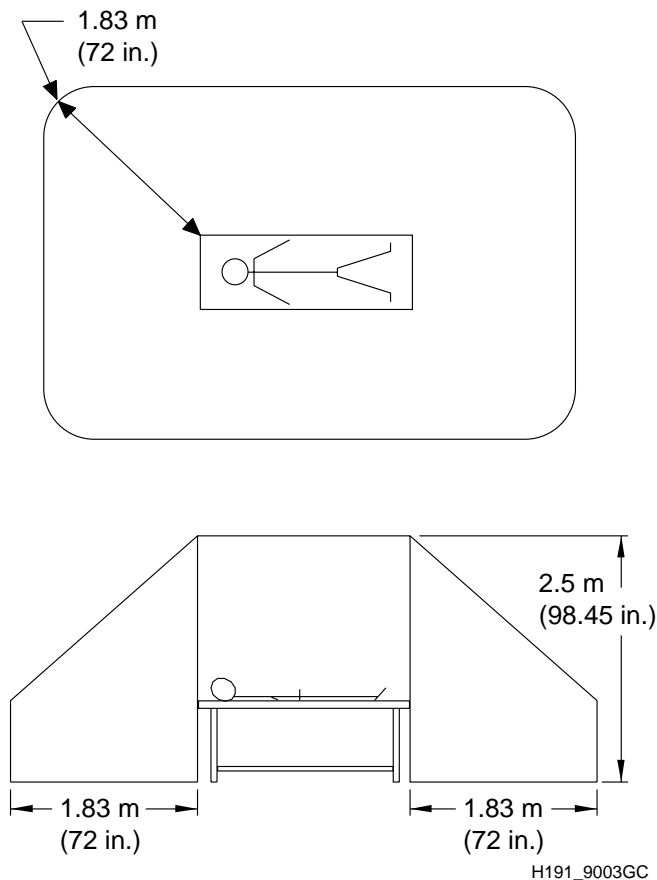


Warning

This icon is used for conditions that could cause injury to a person.

To avoid hazardous conditions, keep floors and floor covering around your equipment and associated drains clean and dry at all times. Any accumulation of fluids from mixing tanks, drain lines, etc., should be cleaned up immediately. In the event of an accumulation of liquid due to backup, overflow or other malfunctions of the drain associated with your PROCESSOR, call a plumber or other contractor to correct any problem with the drain. Kodak accepts no responsibility or liability whatsoever for the serviceability of any drain connected to or associated with the equipment. Such drains are the sole responsibility of the customer.

The graphic indicates the specifications for equipment installation.



Caution

This icon is used for conditions that could cause damage to equipment or software data.

To avoid a partial reset and possible equipment malfunction, always press “**CLEAR**” on the DISPLAY PANEL or de-energize and energize the equipment to reset the system. Do not use the RESET BUTTONS on the BOARDS.



ESD

Possible damage from electrostatic discharge.

This icon is used for conditions that could cause damage to the equipment.

Electrostatic discharge (ESD) is a primary source of:

- equipment failure
- equipment repairs

A person cannot detect an electrical charge of less than 3,500 V, but 30 V can cause damage to components in the equipment.

Preventive Measures

- Check for an ESD WARNING LABEL before doing any procedure with ESD-sensitive components. All sensitive components have graphic LABELS that frequently include instructions. Use all label instructions.
- Wear a GROUNDING STRAP when you touch ESD-sensitive components. Check that the CLIP remains fastened to a ground that has a clean surface with no paint.
- Repair components in an ESD-protection area or use a PORTABLE GROUNDING MAT.
- When moving ESD-sensitive components from area to area, insert and transport the components in the special material made for the transport of these components.



Important

This icon is used for important information.



Note

This icon is used for additional information.

Section 2: Necessary Materials

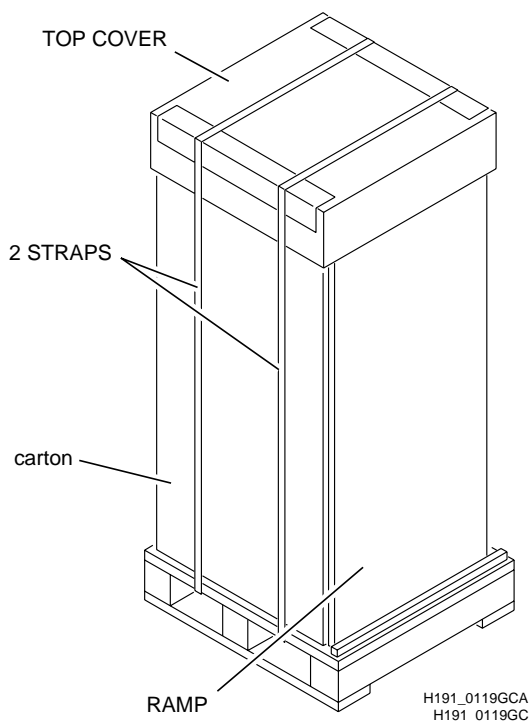
Tools

Part No.	Description	Notes
TL-1434	LEVEL	
TL-1481	POTENTIOMETER ADJUSTMENT TOOL	
TL-2431	AIR METER	
TL-3386	DIGITAL VOLTAGE METER (DVM)	
---	DATA CABLE	
---	LAPTOP COMPUTER	
---	TUBING, 1.27 cm (0.5 in.) inner diameter	
---	SAFETY TESTER	Europe only

Section 3: Installation

Installing the *Kodak* MINILOADER 2000

Unpacking the Equipment



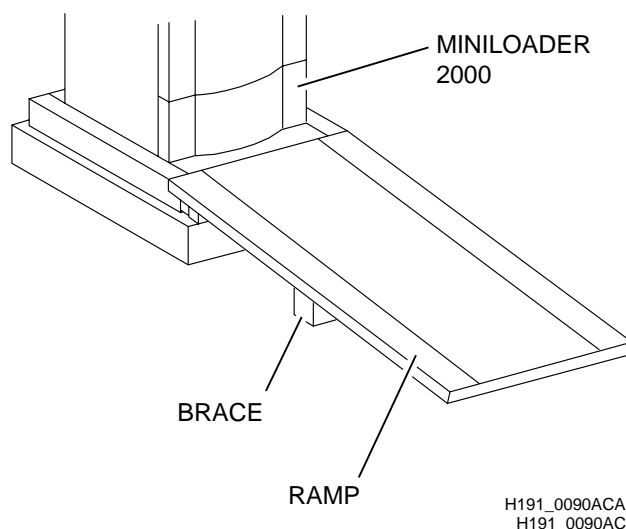
Warning

- The MINILOADER 2000 must not be installed in an area with an external magnetic field. The INTERLOCK SYSTEM of the MINILOADER 2000 has REED CONTACTS that might be actuated by an external magnetic field.
- Be careful when you cut the STRAPS. The STRAPS are tight.
- Do not allow the RAMP to fall.

[1] Cut the 2 STRAPS.

[2] Remove:

- TOP COVER
- carton
- RAMP



Important

The BRACE is packed under the MINILOADER 2000.

[3] Install:

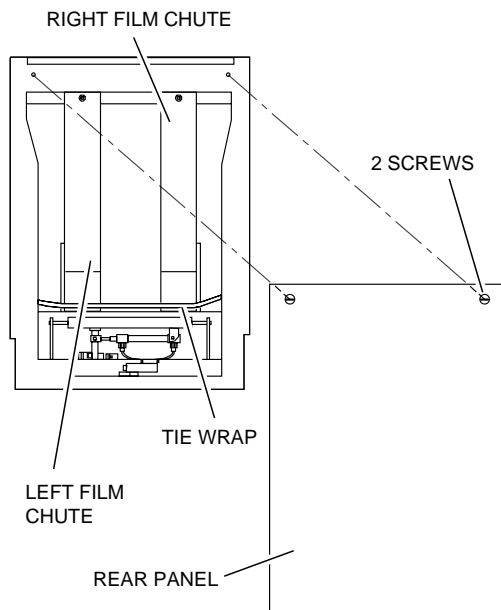
- RAMP
- BRACE



Warning

Use more than one person to move the MINILOADER 2000.

[4] Carefully move the MINILOADER 2000 down the RAMP.

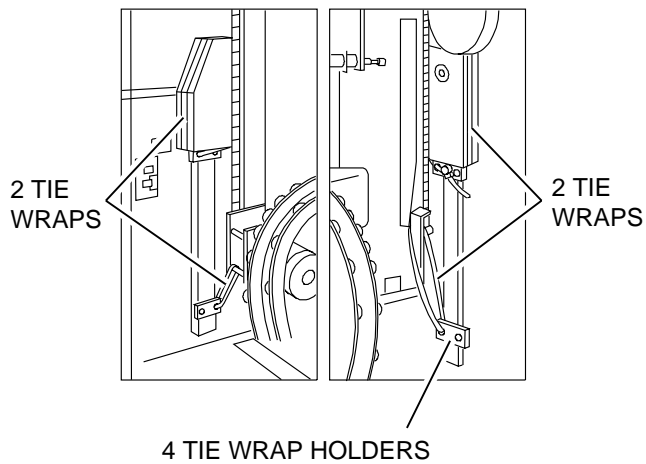


H191_0120GCA
H191_0120GC

[5] Loosen the 2 SCREWS.

[6] Remove:

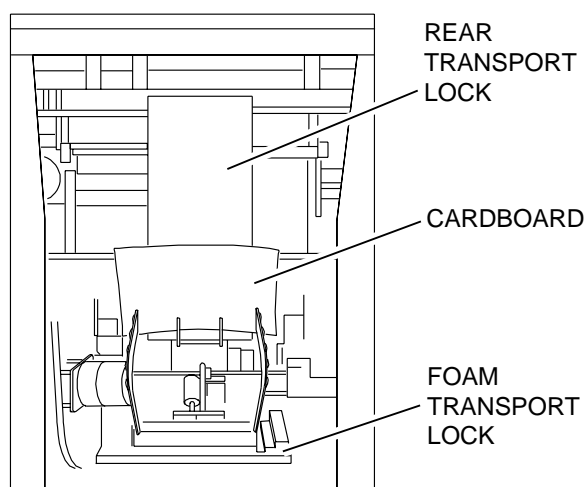
- REAR PANEL
- TIE WRAP
- RIGHT FILM CHUTE
- LEFT FILM CHUTE



H191_0092ACA
H191_0092AC

[7] Remove:

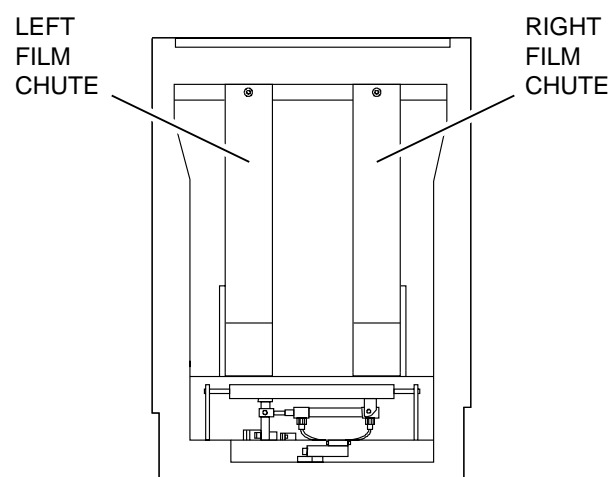
- 2 TIE WRAPS
- 2 TIE WRAPS
- 4 TIE WRAP HOLDERS



H191_0093ACA
H191_0093AC

[8] Remove:

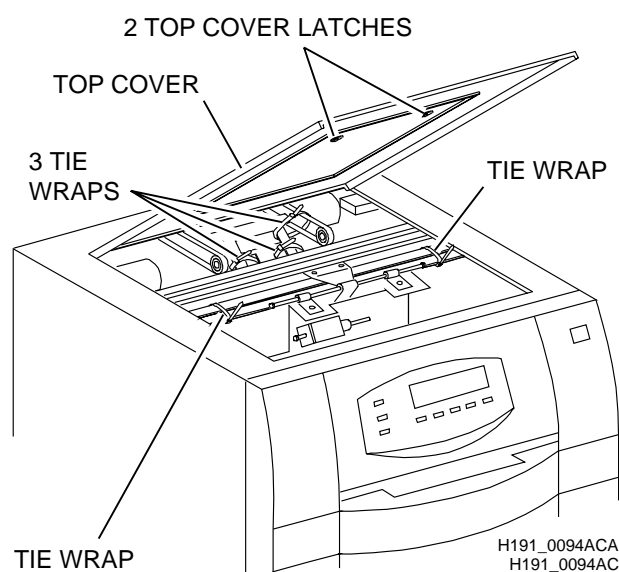
- FOAM TRANSPORT LOCK
- CARDBOARD
- REAR TRANSPORT LOCK



H191_0091ACA
H191_0091AC

[9] Install:

- RIGHT FILM CHUTE
- LEFT FILM CHUTE



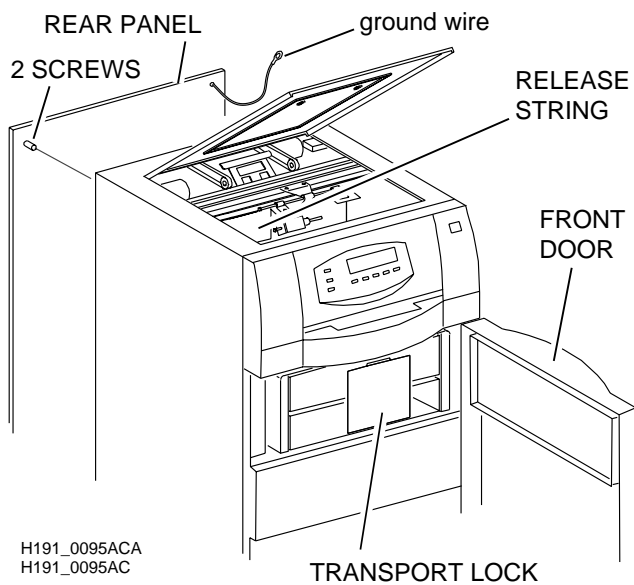
H191_0094ACA
H191_0094AC

[10] Loosen the 2 TOP COVER LATCHES.

[11] Open the TOP COVER.

[12] Remove the 5 TIE WRAPS.

INSTALLATION INSTRUCTIONS



[13] Pull the RELEASE STRING to open the FRONT DOOR.

[14] Remove the TRANSPORT LOCK.

[15] Install:

- ground wire
- REAR PANEL

[16] Tighten the 2 SCREWS.

[17] Do:

Procedure	Page
Installing the Equipment on the MINILOADER 2000 or the MINILOADER 2000P	20
Doing the Electrical Setup on the MINILOADER 2000 or the MINILOADER 2000P	24
Doing the Setup for the MINILOADER 2000 and MINILOADER 2000P	29

Checking the Operation of the MINILOADER 2000



Warning

Dangerous Voltage

- [1] If necessary, energize the MINILOADER 2000.
- [2] Load the 2 SUPPLY MAGAZINES with the corresponding size of film.
- [3] Press "UNLOAD" on the OPERATOR CONTROL PANEL.
- [4] Insert a 18 x 24 cm CASSETTE or a 24 x 30 cm CASSETTE loaded with film into the MINILOADER 2000.
- [5] Check that the CASSETTE feeds the film into the *Kodak* MINILOADER 2000 LIGHTWEIGHT RECEIVE MAGAZINE without error codes.
- [6] Did the CASSETTE feed without error codes?

Yes	No
Continue with Step 7 .	a. Use diagnostics to correct the error code. b. Do Steps 3 - 6 again.

- [7] Insert a empty 18 x 24 cm CASSETTE or a empty 24 x 30 cm CASSETTE into the MINILOADER 2000.
- [8] Press "LOAD" on the OPERATOR CONTROL PANEL.
- [9] Check that the MINILOADER 2000 loaded the CASSETTE with the correct size of film from the SUPPLY MAGAZINE without error codes.
- [10] Did the CASSETTE load without error codes?

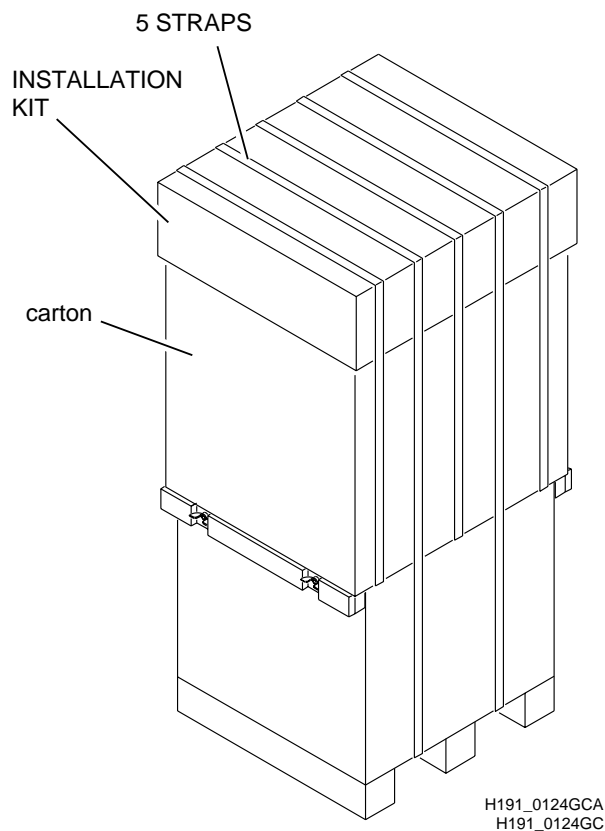
Yes	No
Continue with Step 11 .	a. Use diagnostics to correct the error code. b. Do Steps 7 - 10 again.

- [11] Insert a 18 x 24 cm CASSETTE or a 24 x 30 cm CASSETTE loaded with film into the MINILOADER 2000.
- [12] Check that the film from the CASSETTE loaded into the RECEIVE MAGAZINE and the CASSETTE is loaded with a new film from the SUPPLY MAGAZINE without error codes.
- [13] Do Steps [2](#) - [12](#) for all size CASSETTES.
- [14] Did the MINILOADER 2000 operate without error codes?

Yes	No
The MINILOADER 2000 installation is complete.	a. Use diagnostics to correct the error code. b. Do Steps 11 - 14 again.

Installing the *Kodak* MINILOADER 2000P

Unpacking the Equipment



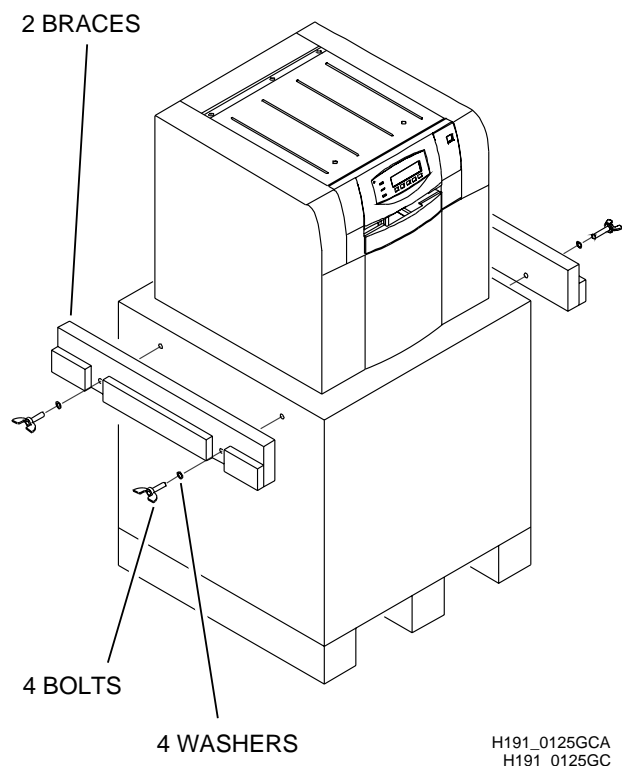
Warning

Be careful when you cut the STRAPS. The STRAPS are tight.

[1] Cut the 5 STRAPS.

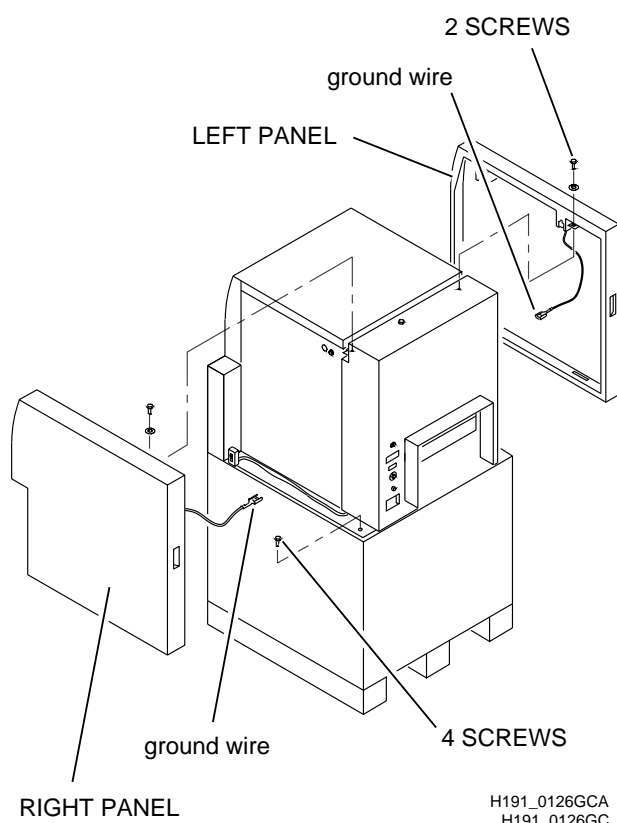
[2] Remove:

- INSTALLATION KIT
- carton



[3] Remove:

- 4 BOLTS
- 4 WASHERS
- 2 BRACES

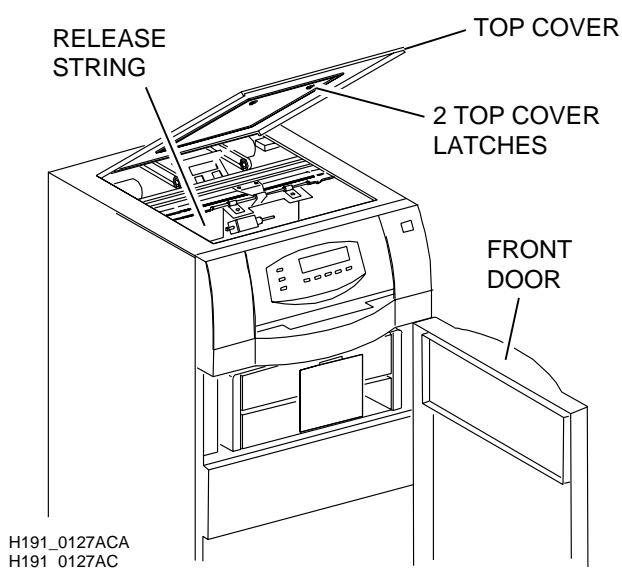


[4] Remove:

- 2 SCREWS
- LEFT PANEL
- RIGHT PANEL

[5] Disconnect the 2 ground wires.

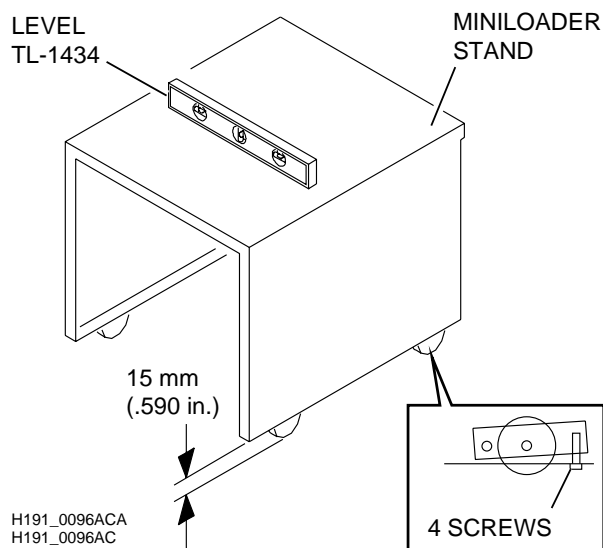
[6] Remove the 4 SCREWS.



[7] Loosen the 2 TOP COVER LATCHES.

[8] Open the TOP COVER.

[9] Pull the RELEASE STRING to open the FRONT DOOR.



Important

The MINILOADER STAND is packed with the *Kodak Min-R MAMMOGRAPHY INTEGRATED PROCESSOR*.

[10] Do:

Procedure	Step
"Installing the KODAK Min-R MAMMOGRAPHY INTEGRATED PROCESSOR" on Page 34	1 - 4

[11] Move the MINILOADER STAND to the installation site.

[12] Rotate the 4 SCREWS to adjust the height of the MINILOADER STAND to 15 mm (.590 in.).

[13] Use the LEVEL TL-1434 and adjust the 4 SCREWS to level the STAND.

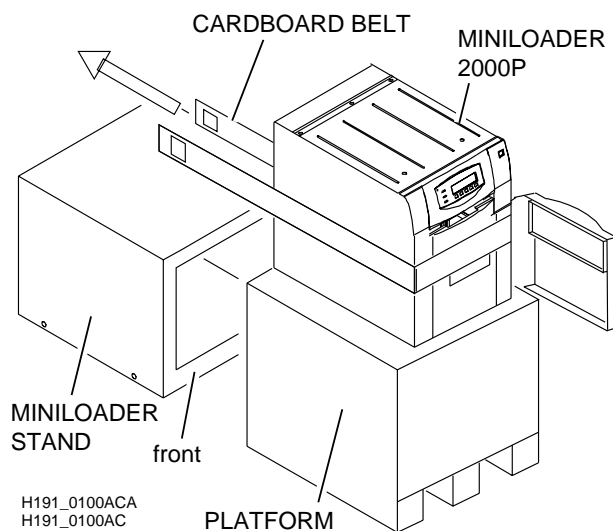
[14] Install the CARDBOARD BELT from the INSTALLATION KIT to the MINILOADER 2000P.

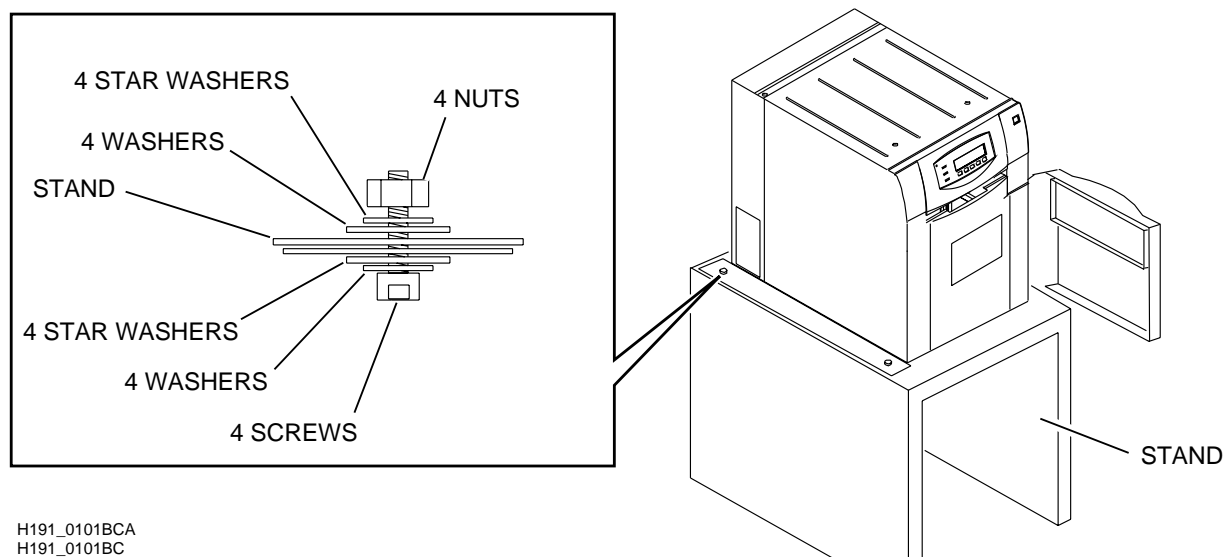


Warning

- Use more than one person to move the MINILOADER 2000P.
- The front of the MINILOADER STAND must be against the PLATFORM.

[15] Carefully move the MINILOADER 2000P onto the MINILOADER STAND.

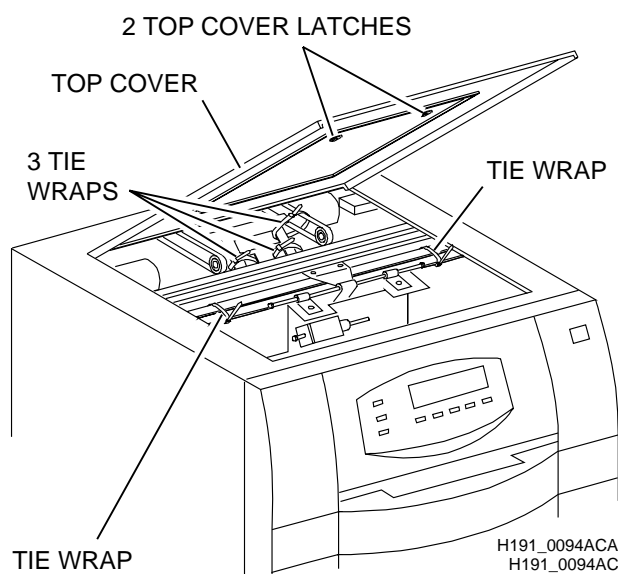




[16] Install the MINILOADER 2000P to the STAND using:

- 4 WASHERS
- 4 STAR WASHERS
- 4 SCREWS
- 4 WASHERS
- 4 STAR WASHERS
- 4 NUTS

[17] Discard the PLATFORM.

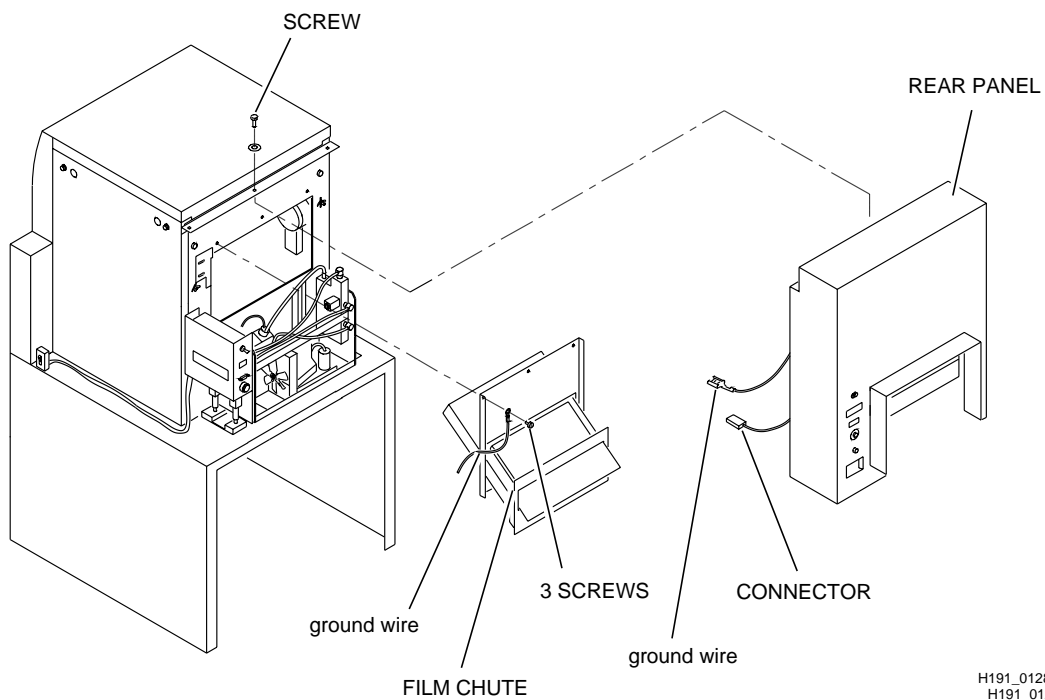
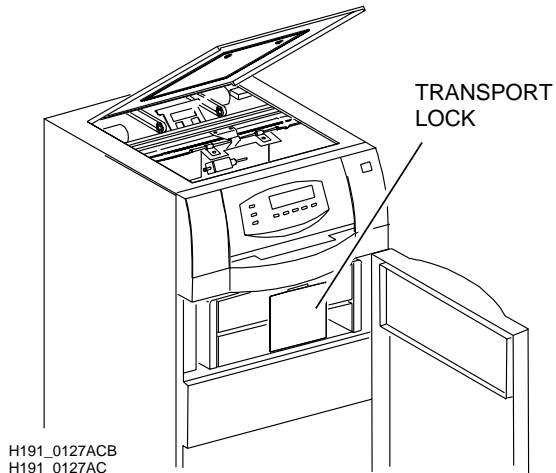


[18] If necessary, loosen the 2 TOP COVER LATCHES.

[19] If necessary, lift the TOP COVER.

[20] Remove the 5 TIE WRAPS.

[21] Remove the TRANSPORT LOCK.

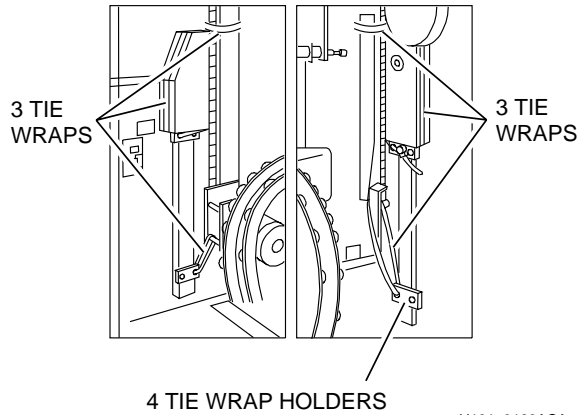


[22] Remove:

- SCREW
- REAR PANEL
- ground wire
- CONNECTOR
- 3 SCREWS
- FILM CHUTE
- ground wire

[23] Remove:

- 6 TIE WRAPS
- 4 TIE WRAP HOLDERS

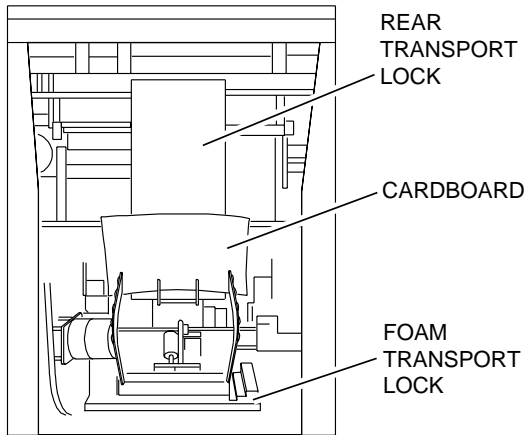


H191_0129ACA
H191_0129AC

[24] Remove:

- REAR TRANSPORT LOCK
- FOAM TRANSPORT LOCK
- CARDBOARD

[25] Advance to [Installing the Equipment on the MINILOADER 2000 or the MINILOADER 2000P.](#)

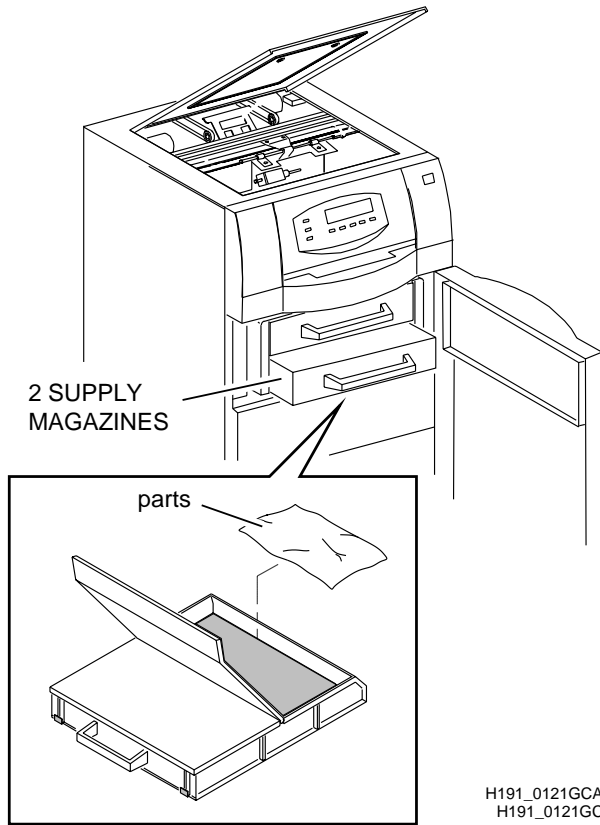


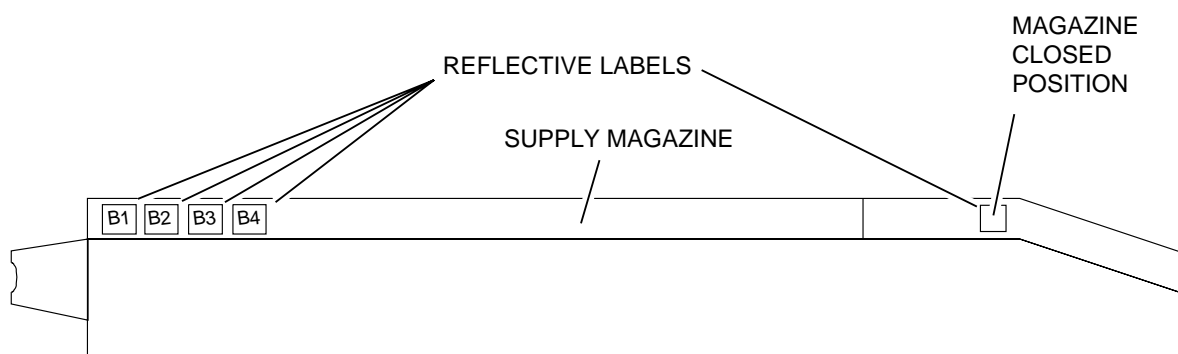
H191_0093ACA
H191_0093AC

Installing the Equipment on the MINILOADER 2000 or the MINILOADER 2000P

[1] Remove:

- 2 SUPPLY MAGAZINES from the MINILOADER 2000 or MINILOADER 2000P
- Parts from the SUPPLY MAGAZINE

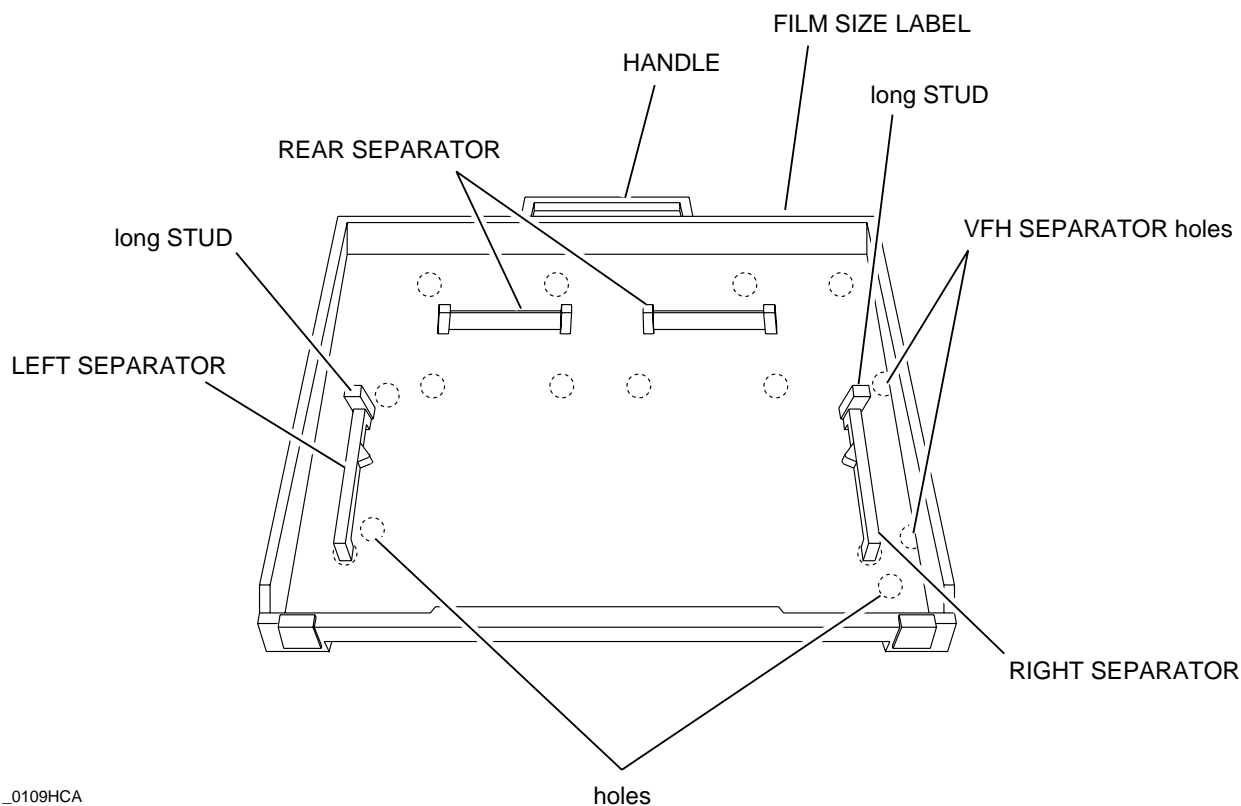




H191_0108BCA
H191_0108BC

- [2]** Install a REFLECTIVE LABEL from the INSTALLATION KIT to all SUPPLY MAGAZINES on the MAGAZINE CLOSED POSITION.
- [3]** Use the following table to install the other REFLECTIVE LABELS from the INSTALLATION KIT to the B1, B2, B3 and B4 positions of all the SUPPLY MAGAZINES.

Film Size	B1	B2	B3	B4	Notes
18 x 24 cm M	Yes	No	No	No	
18 x 24 cm M2	Yes	No	No	Yes	Type 2
18 x 24 cm R	No	No	Yes	No	Receive only
24 x 30 cm M	Yes	Yes	No	No	
24 x 30 cm M2	Yes	Yes	No	Yes	Type 2
24 x 30 cm R	No	Yes	Yes	No	Receive only
8 x 10 in V	No	Yes	No	No	Must have <i>Kodak</i> MINILOADER 2000P Video Film Holder Kit installed
8 x 10 in V2	No	Yes	No	Yes	Type 2, Must have <i>Kodak</i> MINILOADER 2000P Video Film Holder Kit installed
15 x 30 cm X	Yes	No	Yes	No	
15 x 30 cm X2	Yes	No	Yes	Yes	Type 2
LIGHTWEIGHT RECEIVE MAGAZINE	Yes	Yes	Yes	No	<ul style="list-style-type: none"> MINILOADER 2000 only Both 18 x 24 cm and 24 x 30 cm films loaded in the same MAGAZINE "Manual Unload" in dark room only



H191_0109HCA
H191_0109HC

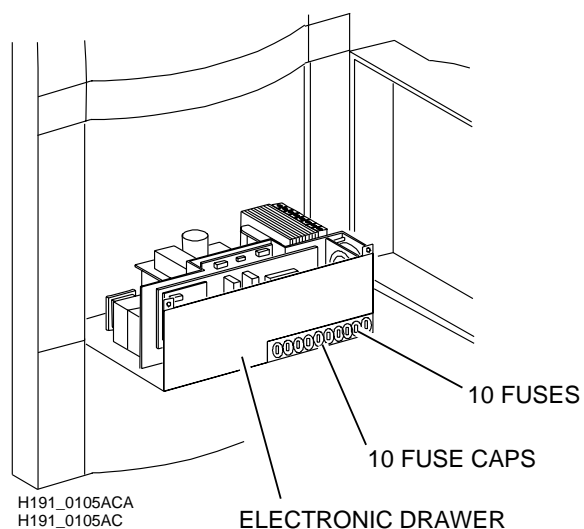


Important

- The RIGHT and LEFT SEPARATORS must be installed with the long STUD toward the HANDLE.
- For 8 x 10 VFH use the VFH SEPARATOR holes.
- The SEPARATORS, HANDLE and LABELS are in the INSTALLATION KIT.

[4] Install on each SUPPLY MAGAZINE:

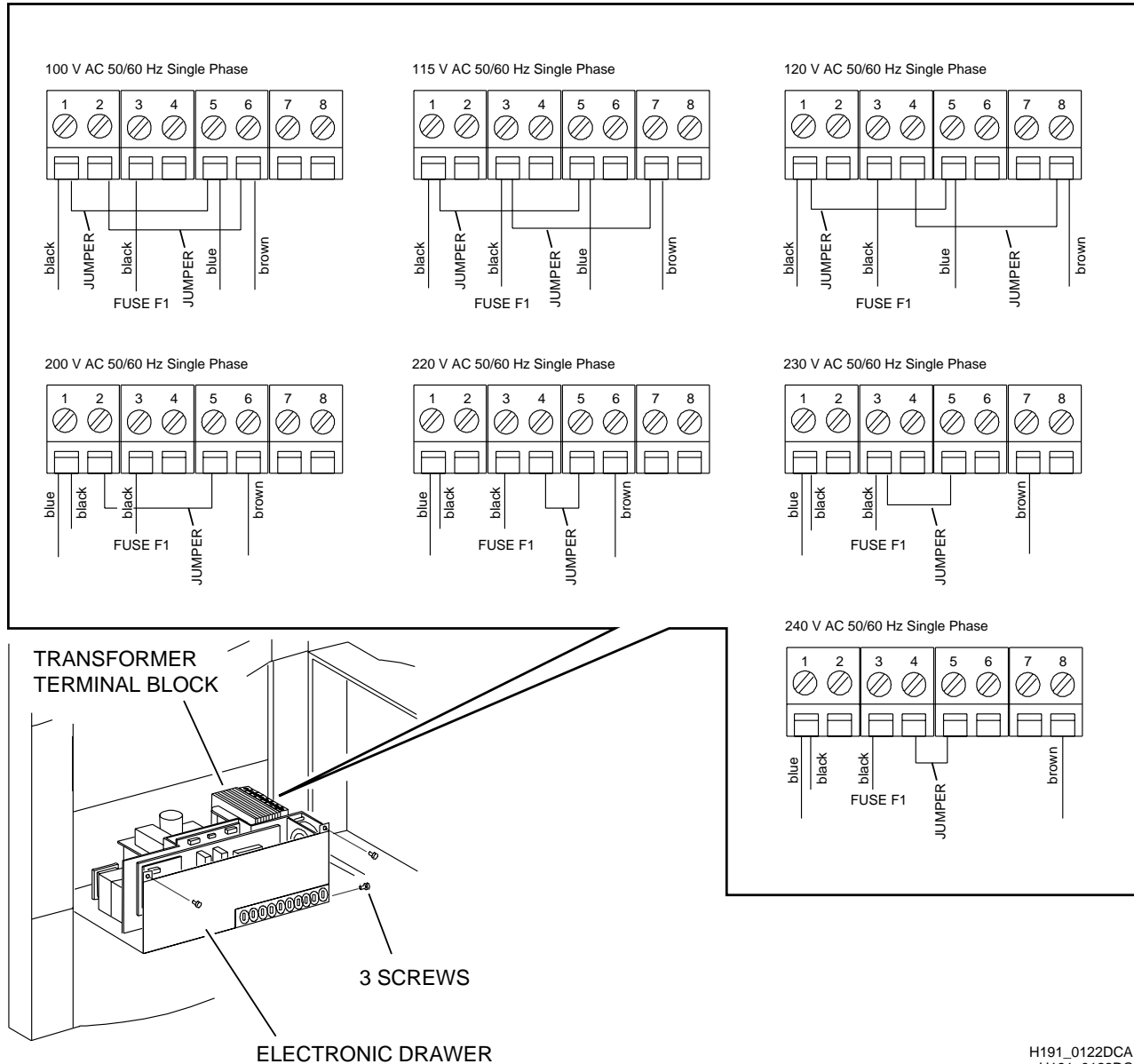
- LEFT SEPARATOR in the corresponding holes
- RIGHT SEPARATOR in the corresponding holes
- REAR SEPARATOR in the corresponding holes
- corresponding FILM SIZE LABEL



[5] Is this installation in the United States or Canada?

Yes	No
<p>a. Remove and discard the 10 FUSE CAPS and 10 FUSES from the ELECTRONIC DRAWER.</p> <p>b. Install the corresponding new “UL” and “CSA Approved” 10 Fuses and 10 FUSE CAPS from the SUPPLY MAGAZINE into the ELECTRONIC DRAWER.</p> <p>c. Advance to Doing the Electrical Setup on the MINILOADER 2000 or the MINILOADER 2000P.</p>	<p>a. Discard the 10 FUSES and 10 FUSE CAPS that are in the SUPPLY MAGAZINE.</p> <p>b. Advance to Doing the Electrical Setup on the MINILOADER 2000 or the MINILOADER 2000P.</p>

Doing the Electrical Setup on the MINILOADER 2000 or the MINILOADER 2000P



H191_0122DCA
H191_0122DC



Warning

Dangerous Voltage

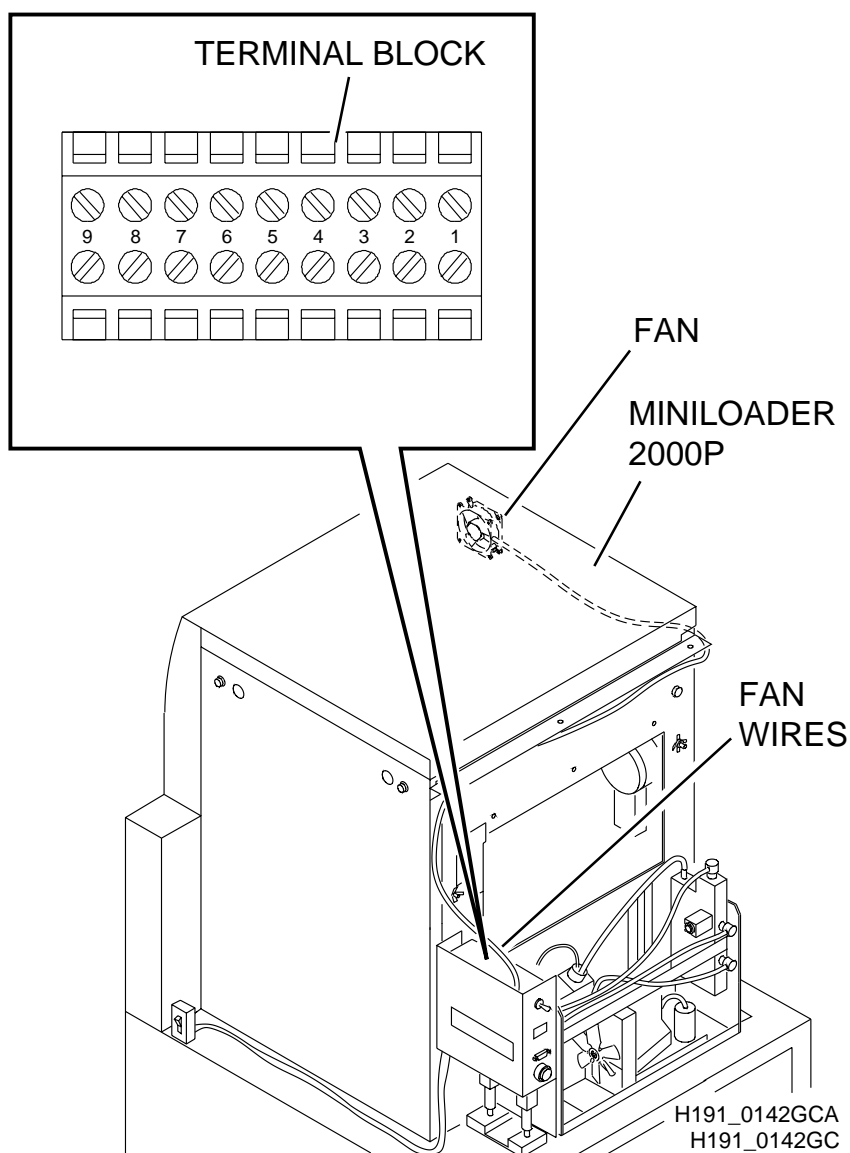
- [1] Use a DVM TL-3386 to measure and record the AC wall power.
- [2] Remove 3 SCREWS.
- [3] Open the ELECTRONIC DRAWER.



Important

For 100 V AC, 115 V AC and 120 V AC, 50/60 Hz Single Phase, an additional JUMPER is used. The additional JUMPER is in the INSTALLATION KIT.

- [4] Use the graphic to check that the connections for the TRANSFORMER TERMINAL BLOCK are correct with the corresponding measurement in Step 1.



Important

The FAN is installed on the MINILOADER 2000P only.

- [5] Use the following table to connect the FAN WIRES to the TERMINAL BLOCK of the MINILOADER 2000P with the corresponding measurement in Step 1:

AC wall power	black FAN WIRE	brown FAN WIRE	gray FAN WIRE	blue FAN WIRE
100 V AC	4	8	5	7
115 V AC	4	8	5	7
120 V AC	4	8	5	7
200 V AC	4	9	9	7
220 V AC	4	9	9	7
230 V AC	4	9	9	7
240 V AC	4	9	9	7

INSTALLATION INSTRUCTIONS

- [6] Use the following table to select the correct PLUG, SOCKET, and POWER CABLE from the INSTALLATION KIT with the corresponding measurement in Step [1](#):

AC wall power	PLUG	SOCKET	Part Number POWER CABLE	Notes
120 V AC	3/14 AWG with NEMA 5-15P or 15 A moulded-on	IEC 320 / EN 60320	9317701	For installation in US or Canada.
240 V AC	3/14 AWG with NEMA 6-15P or 15 A moulded-on	IEC 320 / EN 60320	9317702	For installation in US or Canada.
230 V AC	---	---	7194897	For installation in Europe.
230 V AC	---	---	7183536	For installation in UK.

- [7] Is the correct POWER CABLE included in the INSTALLATION KIT?

Yes	No
Advance to Step 9 .	Continue with Step 8 .



Important

For some countries, the correct POWER CABLE is not included in the INSTALLATION KIT. You must order the correct POWER CABLE for your installation site.

- [8] Use the following table to select the correct POWER CABLE to be ordered for installations in other countries:

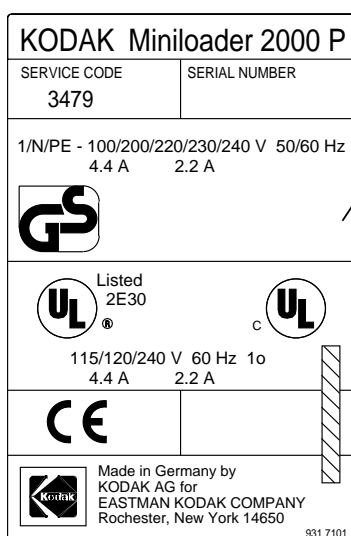
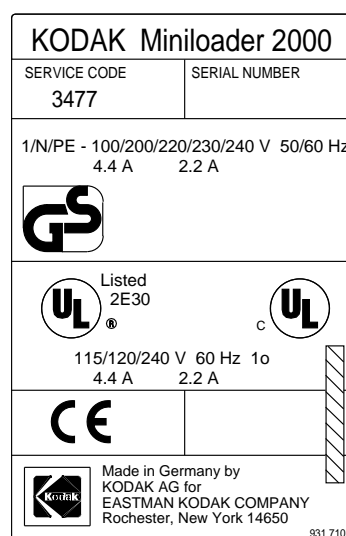
AC wall power	Part Number POWER CABLE	PLUG	Country
240 V AC 50 Hz	7183528	---	Australia
220 V AC 50 Hz	7183528	7194921	China
240 V AC 50 Hz	7183528	---	Fiji Islands
230 V AC 50 Hz	7183528	---	New Zealand
240 V AC 50 Hz	7183528	---	Solomon Islands
220 V AC 50 Hz	7194905	---	Switzerland
220 - 240 V AC 50 Hz	See Local Dealer	---	South Africa
230 V AC 50 Hz	See Local Dealer	---	Israel

- [9] Is your MINILOADER 2000 or MINILOADER 2000P installation in Europe?

Yes	No
Continue with Step 10 .	Advance to Step 14 .

- [10] Is your MINILOADER 2000 or MINILOADER 2000P installation within 1.83 m (72 in.) of the patient environment? [See "Safety" on Page 4.](#)

Yes	No
<p>a. Install the HARMONIZED POWER CABLE H05VV-F 3G 1.5 mm² with PLUG IEC 83 / C4 with VDE approval.</p> <p>b. Install the following customer provided parts:</p> <ul style="list-style-type: none"> EQUIPOTENTIAL EQUALIZATION DEVICE CONNECTION CABLE <p>c. Continue with Step 11.</p>	<p>a. Install the HARMONIZED POWER CABLE H05VV-F 3G 1.5 mm² with PLUG 248 IEC 83/C4 with VDE approval.</p> <p>b. Continue with Step 11.</p>

DATA PLATE
MINILOADER 2000PDATA PLATE
MINILOADER 2000H191_0123BCA
H191_0123BC

[11] Install the corresponding LABEL from the INSTALLATION KIT on the DATA PLATE for the MINILOADER 2000 or the DATA PLATE for the MINILOADER 2000P.

[12] Install the corresponding LABEL from the INSTALLATION KIT on the provided space in:

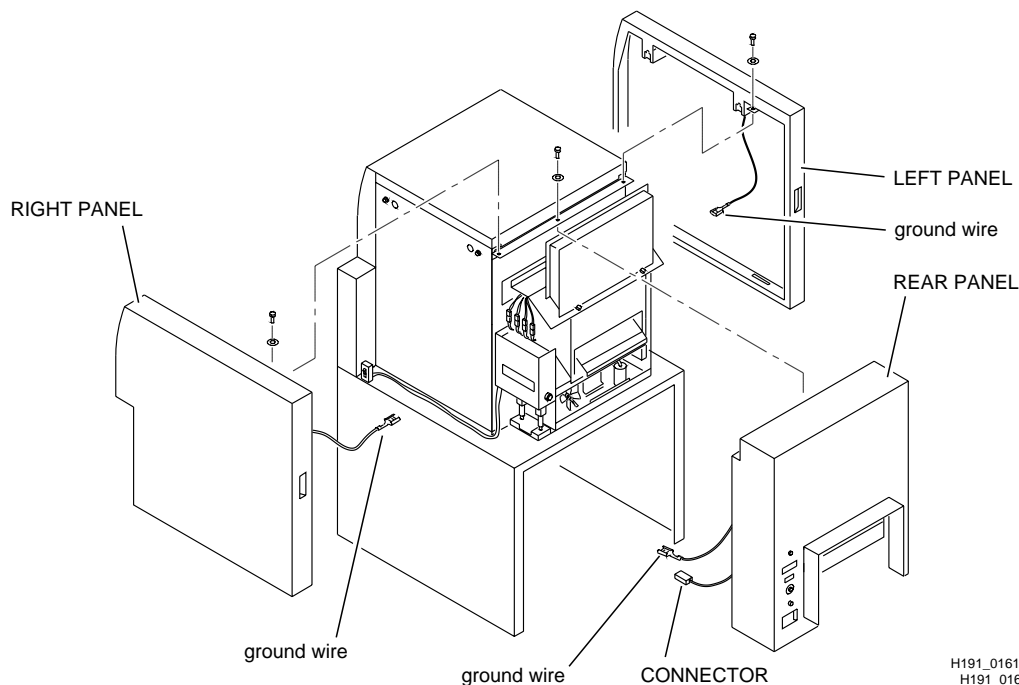
Publication	Publication Number	Section
Kodak MINILOADER 2000 OPERATOR GUIDE	OG 3477 - 4/2000	Specification
Kodak MINILOADER 2000P OPERATOR GUIDE	OG 3479 - 4/2000	Specification

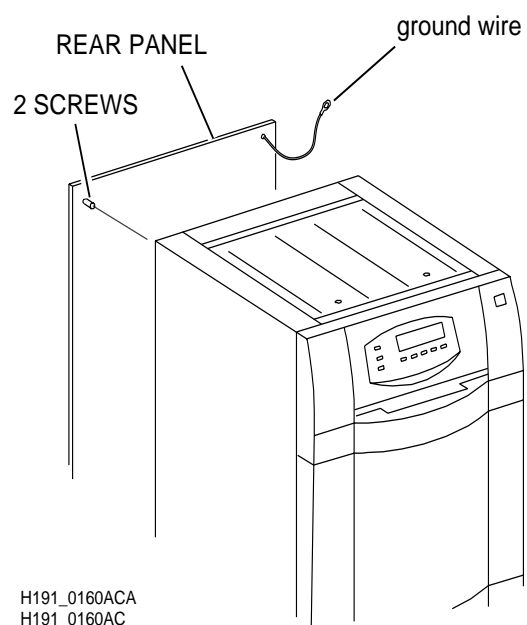
**Warning**

You must use a SAFETY TESTER to check the “Ground Resistance Test” and the “Insulation Resistance Test”.

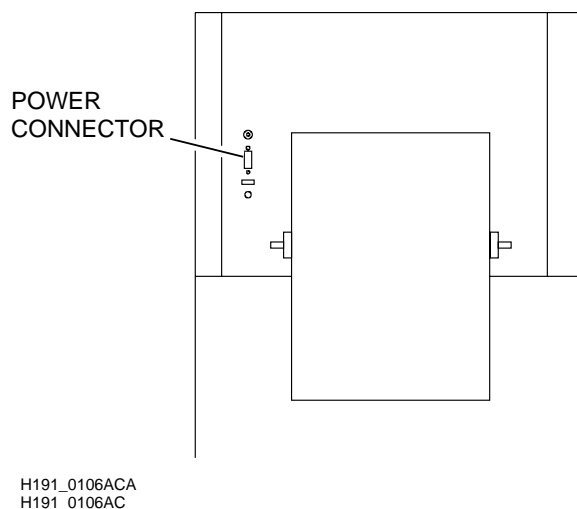
[13] Use a SAFETY TESTER to check the following:

- “Ground Resistance Test” is < 0.1 Ohm between the POWER CABLE GROUND CONNECTOR and all grounds of components and parts
- “Insulation Resistance Test” is > 2 MOhm

H191_0161HCA
H191_0161HC



- [14] Check that all PANELS and grounds are installed on the MINILOADER 2000 and MINILOADER 2000P.



Warning

Do not connect the POWER CABLE to the AC wall power.

- [15] Install the POWER CABLE to the POWER CONNECTOR for the MINILOADER 2000 or MINILOADER 2000P.
- [16] Advance to [Doing the Setup for the MINILOADER 2000 and MINILOADER 2000P](#).

Doing the Setup for the MINILOADER 2000 and MINILOADER 2000P

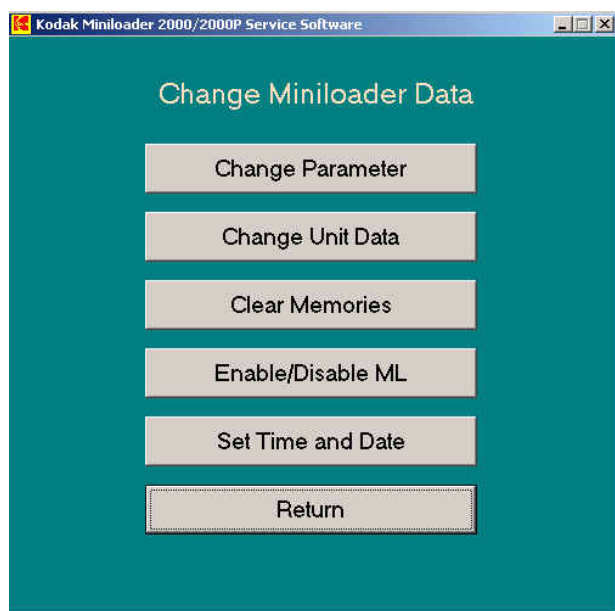
Setting the “Time” and “Date”



Warning

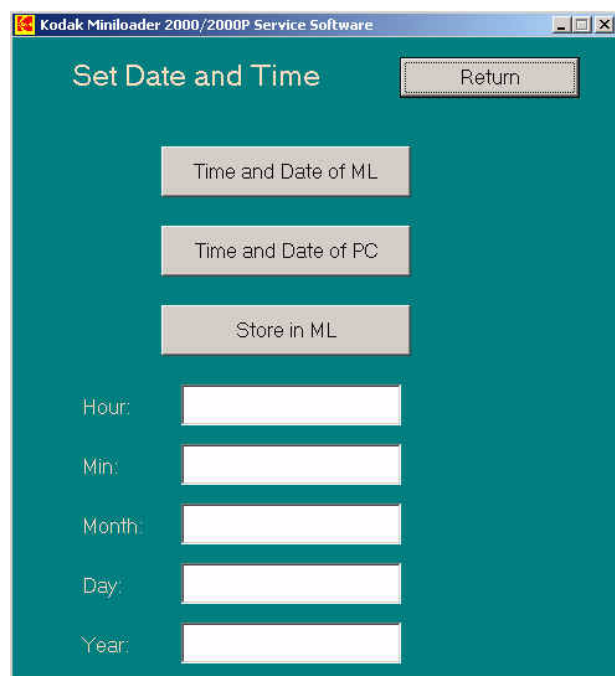
Dangerous Voltage

- [1] Connect the MINILOADER 2000 or MINILOADER 2000P to the AC wall power.
- [2] Energize the MINILOADER 2000 or MINILOADER 2000P.
- [3] Use the DATA CABLE and connect the LAPTOP COMPUTER to the MINILOADER 2000 or MINILOADER 2000P.
- [4] Double-click the “ML2000(P)” icon.



[5] Click:

- [Change Miniloader Data]
- [Set Time and Date]



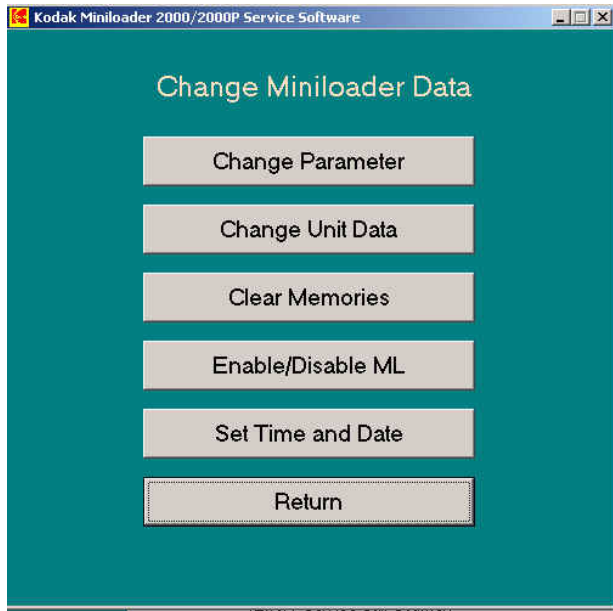
[6] Click [Time and Date of the ML] or [Time and Date of the PC] or type the “Time” and “Date” into the corresponding spaces.

[7] Click:

- [Store in ML]
- [Return]
- [Return]

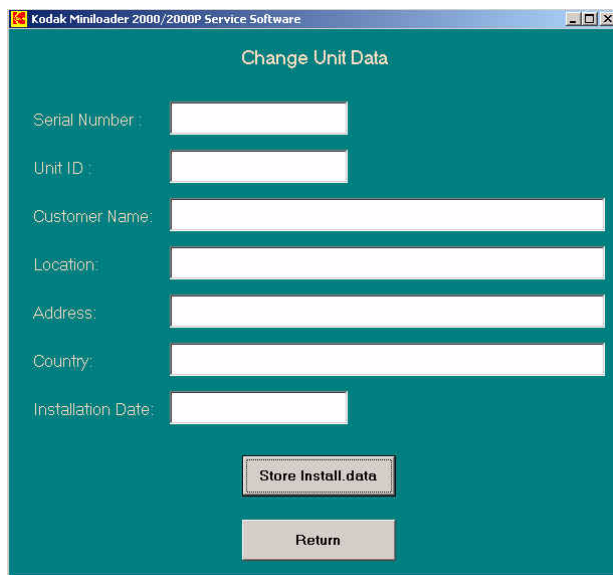
[8] Continue with [Changing the Unit Data](#).

Changing the Unit Data



[1] Click:

- [Change Miniloader Data]
- [Change Unit Data]
- [Set Time and Date]



[2] Type:

- "Serial Number"
- "Unit ID"
- "Customer"
- "Location"
- "Address"
- "Country"
- "Installation Date"

[3] Click:

- [Store Install.data]
- [Return]
- [Return]

[4] Continue with [Setting the "Parameters"](#).

Setting the “Parameters”

Kodak Miniloader 2000/2000P Service Software

Change Parameters

Miniloader Type: **ML2000P without Film Flip** Return

Parameter Cassette Unit		Parameter Magazine Unit	
Miniloader Type	03 H	Magazine Level 1	1504 D
Vacuum Off Time	08 H	Magazine Level 2	2597 D
Rest Time Opener	00 H	Magazine Home Pos.	2597 D
Cassette Offset	000 D	Nearly Empty Level 1	265 D
Cassette Open Return	01 H	Nearly Empty Level 2	265 D
Disable Interface	00 H	Gear Backlash	00 D
8x10" V/15x30cm	00 H	Additional Steps	00 H
Processor Speed	30 D	Tilt Position	00 H
Time to Feed 24cm	18 D	Lower Pocket St.	00 H
		DFF Present	00 H

Cassette Length Scan Run Set Nearly Empty Default

Read Parameters Set Default Value Store Parameters

Status Messages

PURPOSE: This function is used to display the stored PARAMETERS for the multiloader.

[1] Click:

- [Change Miniloader Data]
- [Change Parameters]



Important

The graphic is an example only. Your parameters might not be the same.

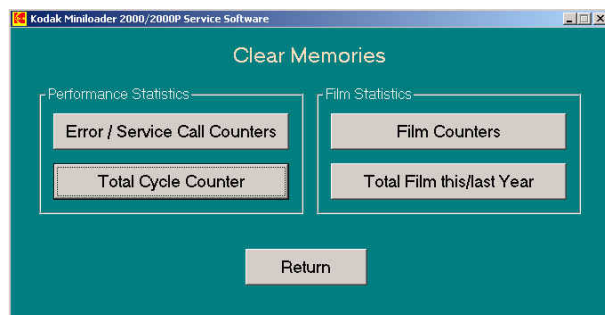
[2] Use the following table to set the PARAMETERS.

Parameter	Default	Value	Notes
"Vacuum Off Time"	08	00 - 0f	
"Rest Time Opener"	00	00 - ff	
"Cassette Open Return"	00	00 - 01	
"Additional Steps"	05	00 - 1e	
"Tilt Position"	14	00 - 46	
"Lower Pocket"	34	00 - 64	
"Disable Interface"	00	00 - AA	<ul style="list-style-type: none"> • "00" enables interface • "AA" disables interface for service • If set to "AA" many functions are disabled. Set to "00" when service is complete.
"8 x 10 in. V/15 x 30 cm"	00	00 - 01	<ul style="list-style-type: none"> • "00" for 8 x 10 in. VIDEO FILM HOLDER KIT only. • "01" Selects 15 x 30 cm CASSETTES
"Processor Speed"	30	10 - 94	
"DFF Present"	00	0 - 1	<ul style="list-style-type: none"> • MINILOADER 2000P only • "0" is not "present" • "1" is "present"
"Time to Feed 24 cm"	25	10 - 01	Automatically sets processor speed

[3] Click [Store Parameters].

[4] Continue with [Clearing the "Memories"](#).

Clearing the “Memories”



Important

You must clear the “Memories” to reset all COUNTERS.

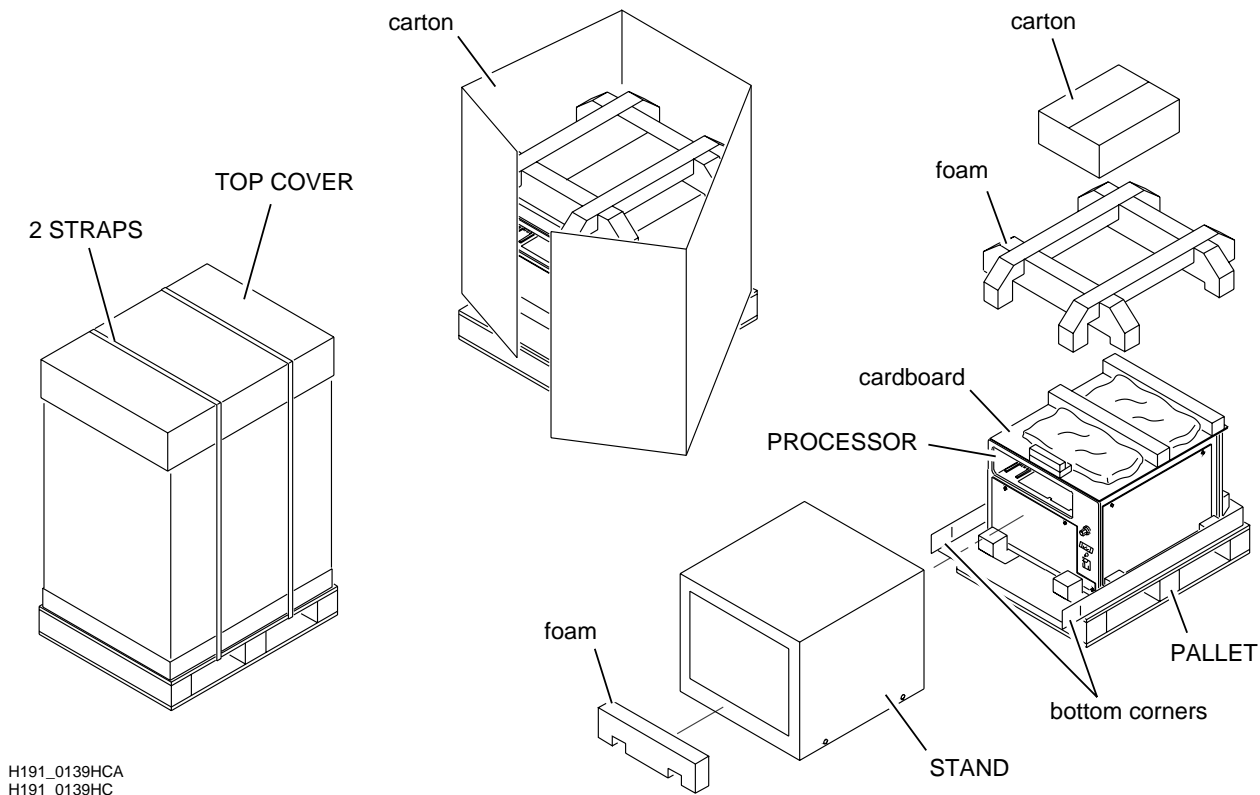
- [1] Click [Clear Memories].
- [2] At the “Clear Memories” screen, click:
 - [Error / Service Call Counter]
 - [Yes]
 - [Total Cycle Counter]
 - [Yes]
 - [Film Counter]
 - [Yes]
 - [Total Film this/last Year]
 - [Yes]
 - [Return]
 - [Return]

- [3] Is your equipment a MINILOADER 2000?

Yes	No
Do “Checking the Operation of the MINILOADER 2000” on Page 13.	a. Disconnect the POWER CABLE from the AC wall power. b. Continue with “Installing the KODAK Min-R MAMMOGRAPHY INTEGRATED PROCESSOR” on Page 34.

Installing the *KODAK Min-R* MAMMOGRAPHY INTEGRATED PROCESSOR

Unpacking the Equipment



Warning

Be careful when you cut the STRAPS. The STRAPS are tight.

[1] Cut the 2 STRAPS.

[2] Remove:

- TOP COVER
- carton - discard

[3] Cut the 2 bottom corners.

[4] Remove:

- foam - discard
- STAND
- foam - discard
- carton
- CARDBOARD - discard

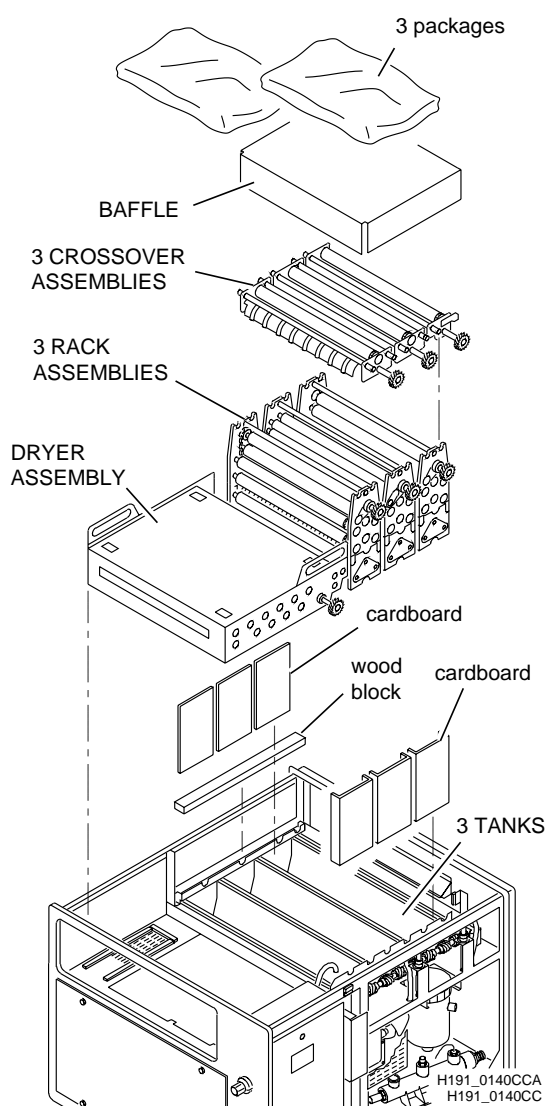


Warning

- The PROCESSOR weight is 90 kg (200 lb).
- Use more than one person to lift the PROCESSOR.

[5] Carefully lift the PROCESSOR from the PALLET.

[6] Place the PROCESSOR at the installation site.



[7] Remove:

- 3 packages
- BAFFLE
- 3 CROSSOVER ASSEMBLIES
- DRYER ASSEMBLY
- 3 RACK ASSEMBLIES

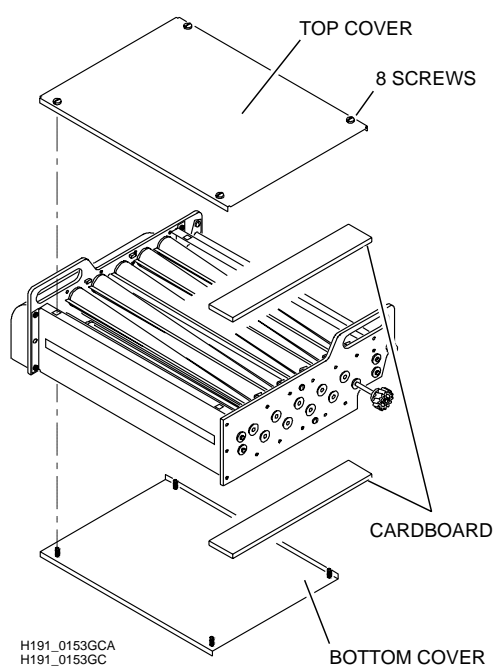
[8] Carefully remove from the 3 TANKS and the 3 RACK ASSEMBLIES:

- CARDBOARD - discard
- WOOD BLOCK - discard

[9] Rinse with water any dust from:

- 3 TANKS
- 3 RACK ASSEMBLIES
- 3 CROSSOVER ASSEMBLIES
- DRYER ASSEMBLY

[10] Use a soft cloth to remove any water from the TANKS and ASSEMBLIES.



[11] Loosen the 8 SCREWS.

[12] Remove from the DRYER ASSEMBLY:

- TOP COVER
- BOTTOM COVER
- CARDBOARD - discard

[13] Install:

- TOP COVER
- BOTTOM COVER

[14] Tighten the 8 SCREWS.

Setting the Frequency and Cycle Speed



Important

The frequency and cycle speed of the PROCESSOR must be set:

- “Standard Cycle” has a transport speed of 76.2 ± 1.5 cm/minute (30.4 ± 0.6 in.)
- “Rapid Cycle” has a transport speed of 101.6 ± 2.0 cm/minute (40.0 ± 0.8 in.)

[1] Check the frequency and cycle speed of the PROCESSOR.

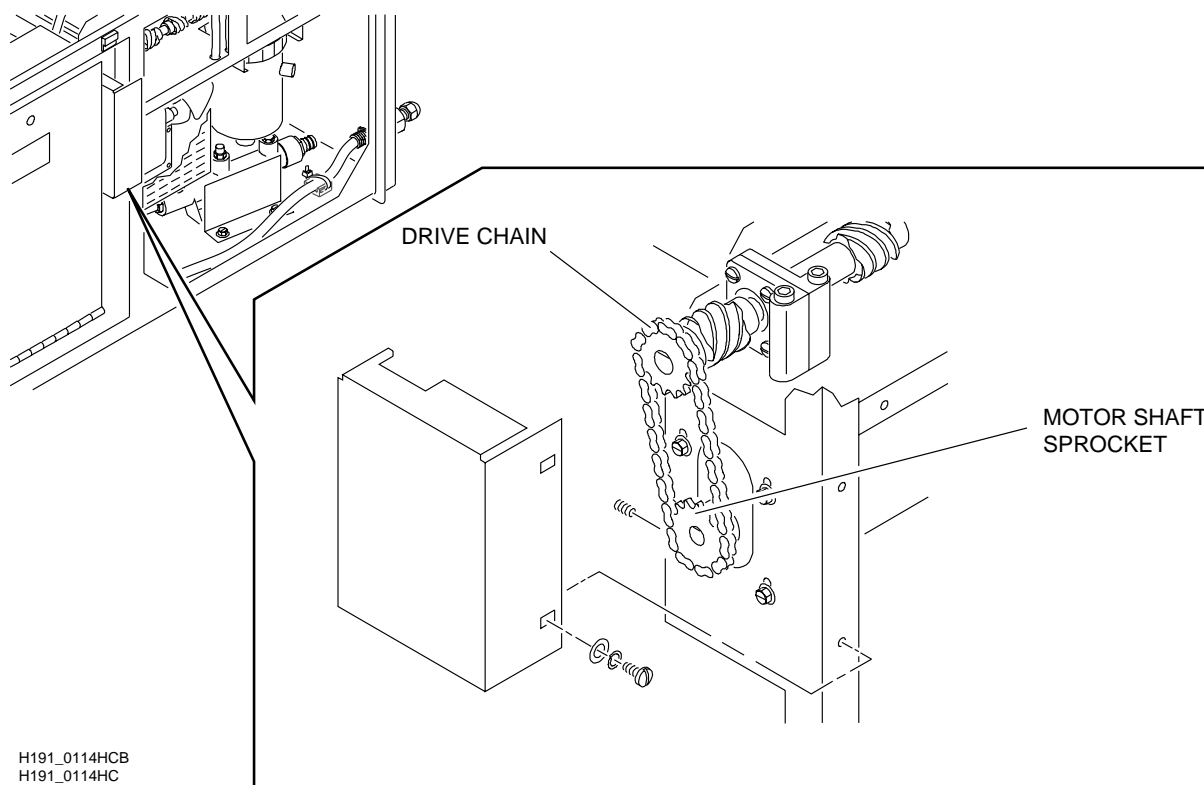
[2] Use the following table to check that the correct MOTOR SHAFT SPROCKET and DRIVE CHAIN are installed:

Frequency	Cycle	MOTOR SHAFT SPROCKET	DRIVE CHAIN
60 Hz	“Standard”	16-TOOTH	short
50 Hz	“Standard”	19-TOOTH	short
60 Hz	“Rapid”	22-TOOTH	long
50 Hz	“Rapid”	26-TOOTH	long



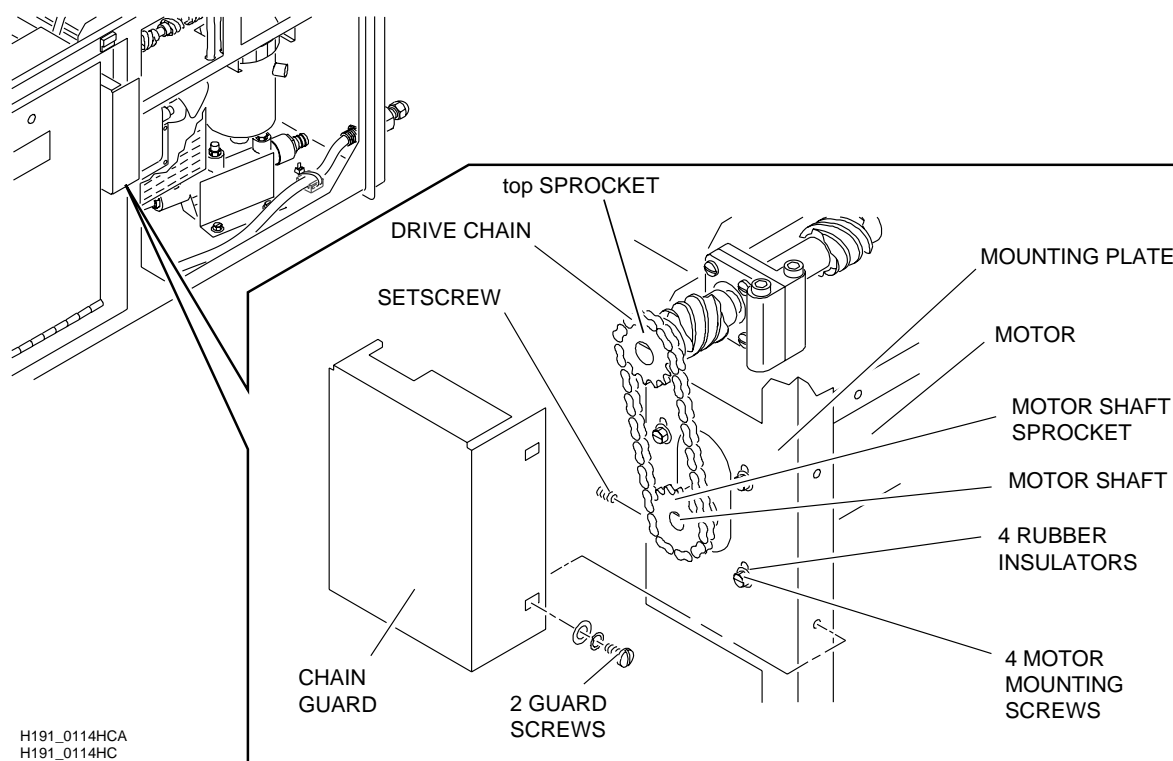
Note

You will do the electrical setup for the frequency and cycle speed in the [Doing the Electrical Setup](#) procedure.



[3] Are the correct MOTOR SHAFT SPROCKET and DRIVE CHAIN installed?

Yes	No
Advance to “Connecting the Plumbing” on Page 38.	Continue with Step 4.



[4] Remove:

- 2 GUARD SCREWS from the MOUNTING PLATE
- CHAIN GUARD

[5] Loosen the 4 MOTOR MOUNTING SCREWS.

[6] Move the MOTOR up and remove the DRIVE CHAIN.

[7] Loosen the SETSCREW.

[8] Remove the MOTOR SHAFT SPROCKET.

[9] With the SETSCREW, install the correct SPROCKET on the MOTOR SHAFT. See the table on Page [36](#).

[10] Align the MOTOR SHAFT SPROCKET with the top SPROCKET and tighten the SETSCREW.

[11] Install the correct DRIVE CHAIN. See the table on Page [36](#).

[12] Move the MOTOR down to tighten the DRIVE CHAIN.



Caution

If the MOTOR MOUNTING SCREWS are too tight, vibration will occur in the MOTOR.

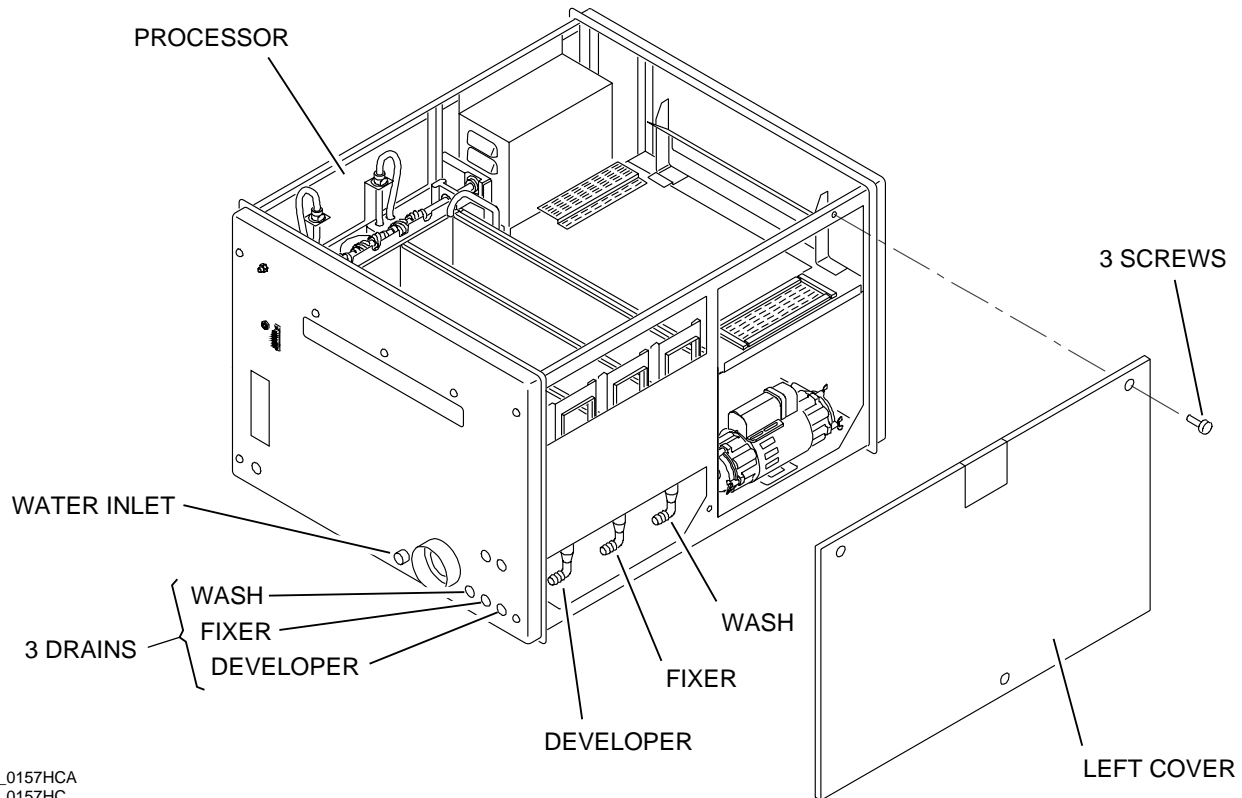
[13] Tighten the 4 MOTOR MOUNTING SCREWS until the 4 RUBBER INSULATORS are partially compressed.

[14] Install:

- CHAIN GUARD
- 2 GUARD SCREWS

[15] Continue with [Connecting the Plumbing](#).

Connecting the Plumbing



H191_0157HCA
H191_0157HC



Important

FLOOR DRAINS must:

- be made of “chemical resistant”, “noncorrosive” material - use PVC or similar
- have a minimum “diameter” of 7.6 cm (3.0 in.)
- be free of obstruction
- agree with local codes

[1] Remove:

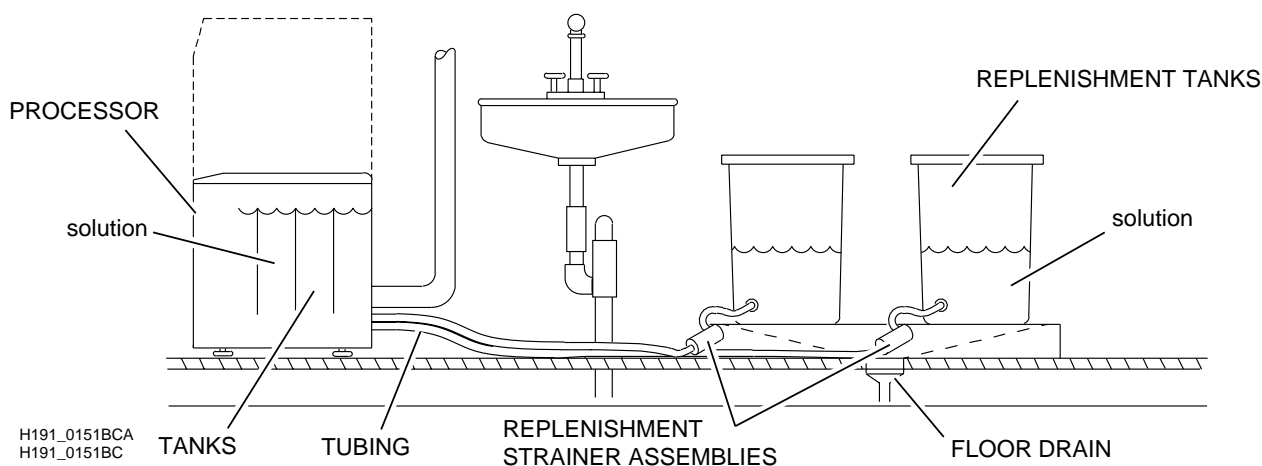
- 3 SCREWS
- LEFT COVER

[2] Use 1.27 cm (0.5 in.) inner diameter TUBING to connect the following 3 DRAINS to the DRAIN in the floor:

- WASH
- FIXER - if a SILVER RECOVERY UNIT is installed, see Page [39](#), Step [4](#)
- DEVELOPER

[3] Connect the site water supply to the WATER INLET of the PROCESSOR.

Connecting the REPLENISHMENT TANKS and the SILVER RECOVERY UNIT



Important

The customer can use either REPLENISHMENT TANKS or a chemical mixing system. An example of a chemical mixing system is a *Kodak AUTOMIXER III*.

[1] Are you installing a chemical mixing system?

Yes	No
a. Use the installation instructions for that system.	Continue with Step 2 .
b. Continue with Step 2 .	

[2] If the customer uses REPLENISHMENT TANKS, install the 2 REPLENISHMENT STRAINER ASSEMBLIES between the REPLENISHMENT TANKS and the PROCESSOR. Use the 0.95 cm (3/8 in.) TUBING.



Note

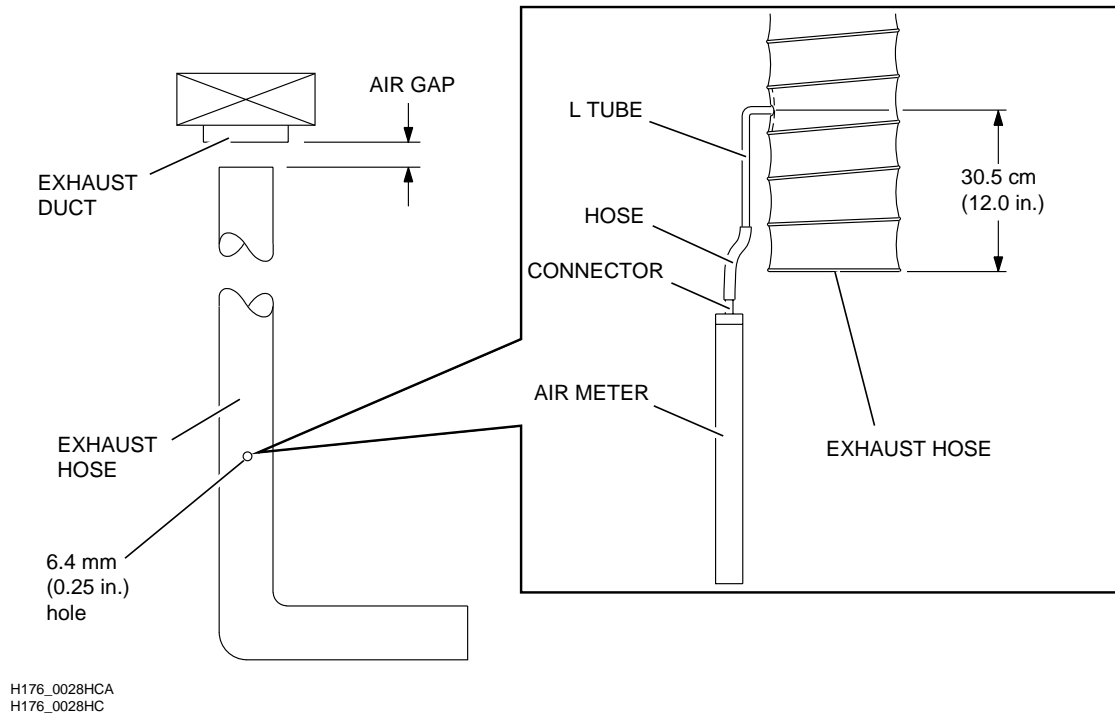
The maximum height of the solutions in the REPLENISHMENT TANKS must be below the solution height in the TANKS of the PROCESSOR.

[3] Check that the connections in the TUBING are tight.

[4] Is a SILVER RECOVERY UNIT used?

Yes	No
a. Install the CHEMICAL RECOVERY CARTRIDGE JUNIOR MODEL II, see corresponding INSTALLATION INSTRUCTIONS. b. If necessary, for installations in Europe, install the WATER SAVER KIT 9527317. c. Continue with “Checking the Negative Pressure” on Page 40 .	Continue with “Checking the Negative Pressure” on Page 40 .

Checking the Negative Pressure



- [1] Connect the rubber HOSE from the AIR METER TL-2431 to:
 - L TUBE
 - center CONNECTOR on the AIR METER
- [2] Make a 6.4 mm (0.25 in.) hole approximately 30.5 cm (12.0 in.) from the end of the EXHAUST HOSE that will be connected to the PROCESSOR.
- [3] Insert the L TUBE into the 6.4 mm (0.25 in.) hole until the end of the L TUBE is flush with the inside of the EXHAUST HOSE.



Important

- Hold the AIR METER vertically.
- Do not connect the EXHAUST HOSE to the PROCESSOR when checking the negative pressure.

- [4] Use the AIR METER to check the negative pressure.
- [5] Use the following table to check that the negative pressure is correct:

"Diameter" of the EXHAUST HOSE	Negative Pressure
7.6 cm (3.0 in.)	0.76 - 1.02 mm (0.03 - 0.04 in.) of water
10.2 cm (4.0 in.)	0.25 - 0.51 mm (0.01 - 0.02 in.) of water

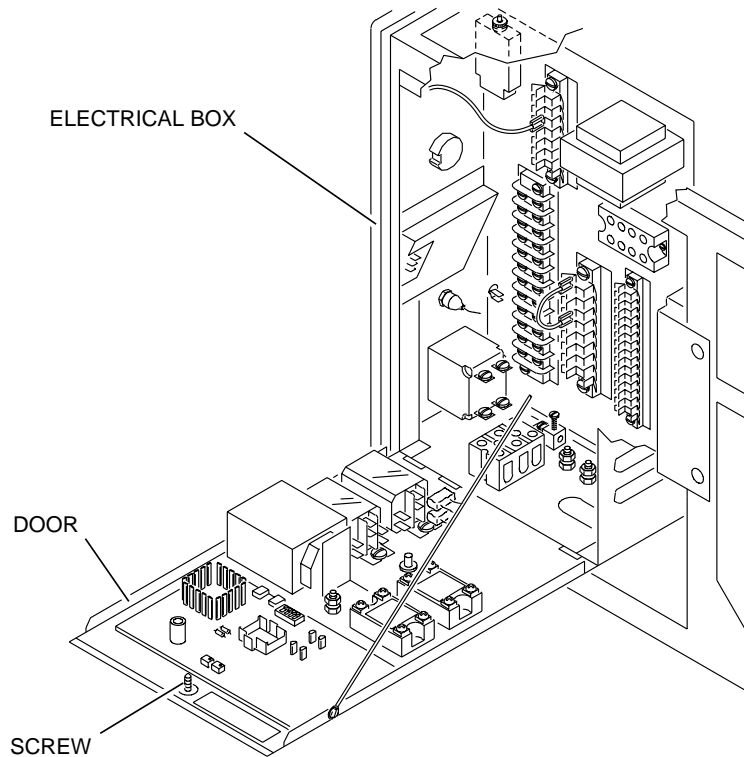
- [6] Is the negative pressure correct?

Yes	No
Continue with Step 7 .	<ol style="list-style-type: none"> a. Adjust the AIR GAP between the EXHAUST DUCT for the site and the EXHAUST HOSE for the PROCESSOR. b. If necessary, install a <i>Kodak</i> AUXILIARY VENTILATION FAN KIT. See the SITE SPECIFICATIONS 3E0816. c. Continue with Step 7.

- [7] Remove the L TUBE from the EXHAUST HOSE and block the hole that was made in Step [2](#).
- [8] Connect the EXHAUST HOSE to the PROCESSOR.

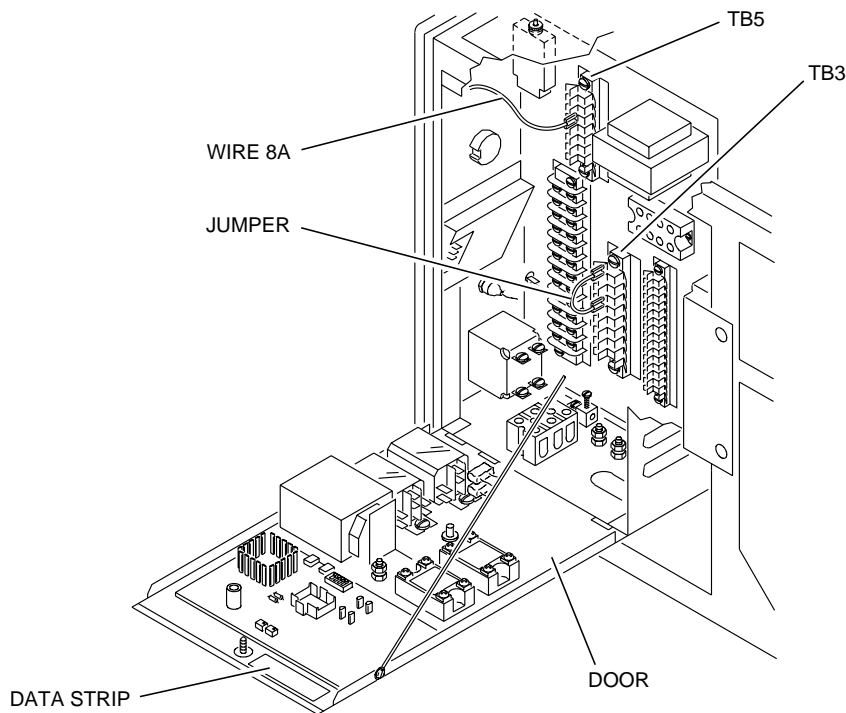
Doing the Electrical Setup

Setting the Power Frequency and Voltage



H191_0131HCA
H191_0131HC

- [1] Loosen the SCREW.
- [2] Open the DOOR to the ELECTRICAL BOX.



H191_0131HCB
H191_0131HC



Caution

The frequency and voltage connections for the PROCESSOR and the AC wall power at the site must be the same.

- [3] Use a DVM to measure and record the frequency and voltage of the AC wall power at the site.
- [4] If necessary, use the following table to move the JUMPER to the correct position on TB3 of the PROCESSOR with the corresponding measurement in STEP 3:

Frequency	Position
50 Hz	TB3-7 to TB3-8
60 Hz	TB3-7 to TB3-9



Important

Count from the bottom of TB5 to obtain the correct position.

- [5] If necessary, use the following table to move the WIRE 8A to the correct position on TB5 with the corresponding measurement in STEP 3:

AC wall power	Position
200 or 208 V AC	TB5-2
220 or 230 V AC	TB5-3
240 V AC	TB5-4

- [6] Apply the correct DATA STRIP inside the DOOR to indicate the frequency and voltage that the PROCESSOR is set for.

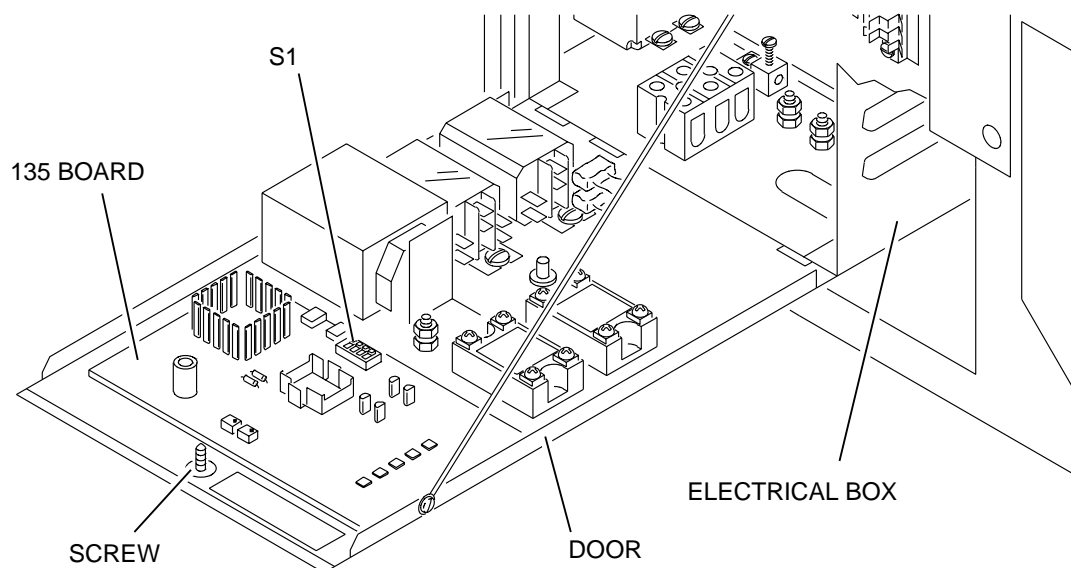


Warning

You must use a SAFETY TESTER to check the “Ground Resistance Test” and the “Insulation Resistance Test”.

- [7] Use a SAFETY TESTER to check the following:
- “Ground Resistance Test” is $< 0.1 \Omega$ between the POWER CABLE GROUND CONNECTOR and all grounds of components and parts
 - “Insulation Resistance Test” is $> 2 M\Omega$

Setting the SWITCH S1 on the 135 BOARD

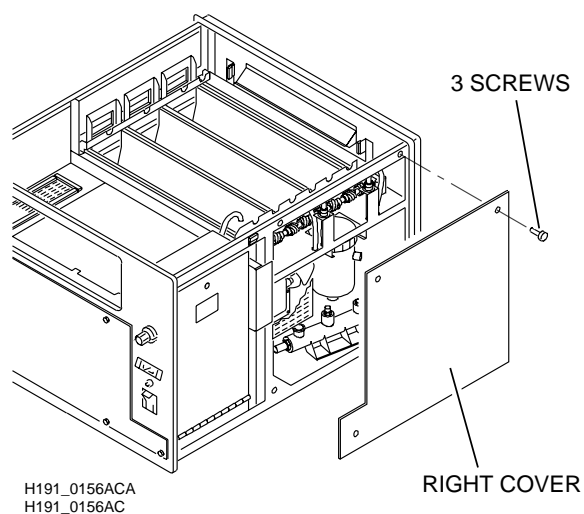


H191_0137BCB
H191_0137BC

- [1] Loosen the SCREW.
- [2] Open the DOOR to the ELECTRICAL BOX.
- [3] Use the following table to set the SWITCH S1 on the 135 BOARD:

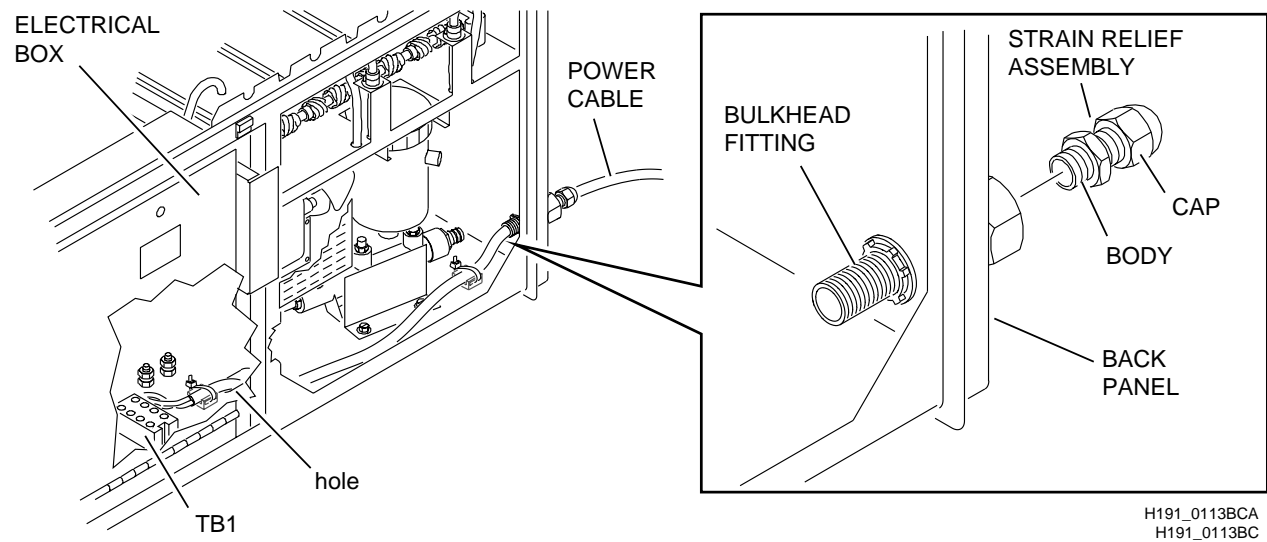
S1-1	S1-2	S1-3	S1-4	S1-5	S1-6	S1-7	S1-8
ON	ON	ON	ON	ON	OFF	ON	ON

- [4] Remove:
 - 3 SCREWS
 - RIGHT COVER



H191_0156ACA
H191_0156AC

Connecting the POWER CABLE



- [1] Install the STRAIN RELIEF ASSEMBLY into the BULKHEAD FITTING on the BACK PANEL.
- [2] Tighten the BODY of the STRAIN RELIEF ASSEMBLY.
- [3] Use the following table to select the correct POWER CABLE from the INSTALLATION KIT.

AC wall power	Description	Part Number	Notes
208 V AC	3/14 AWG with NEMA L21-20P	9317703	For installation in US or Canada.
240 V AC	3/14 AWG with NEMA 6-20P	9317704	For installation in US or Canada.

- [4] Is your PROCESSOR installation in Europe?

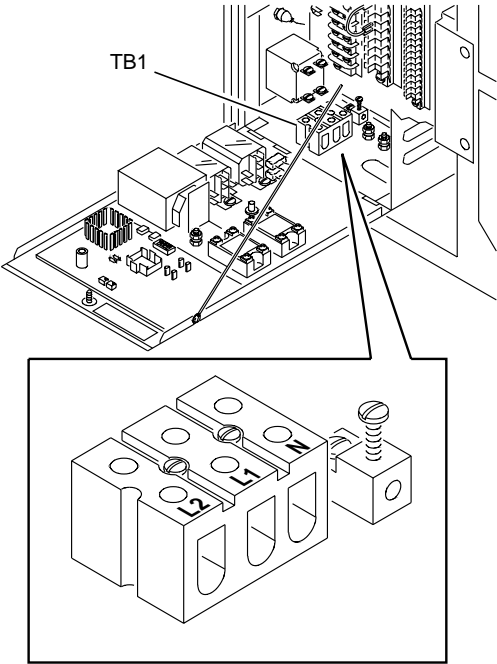
Yes	No
Continue with Step 5 .	Advance to Step 6 .

- [5] Is your PROCESSOR installation within 1.83 m (72 in.) of the patient environment? [See “Safety” on Page 4.](#)

Yes	No
<p>a. Install the HARMONIZED POWER CABLE H05VV-F 3G 1.5 mm² with PLUG 248 16-6h/220 - 240 V AC, 2P + ground with VDE approval.</p> <p>b. Install the following customer provided parts:</p> <ul style="list-style-type: none"> EQUIPOTENTIAL EQUALIZATION DEVICE CONNECTION CABLE <p>c. Continue with Step 6.</p>	<p>a. Install the HARMONIZED POWER CABLE H05VV-F 3G 1.5 mm² with ICE 83 / C4 with VDE approval.</p> <p>b. Continue with Step 6.</p>

- [6] Install the POWER CABLE through the STRAIN RELIEF ASSEMBLY.
- [7] Extend the POWER CABLE through the hole in the ELECTRICAL BOX to TB1.

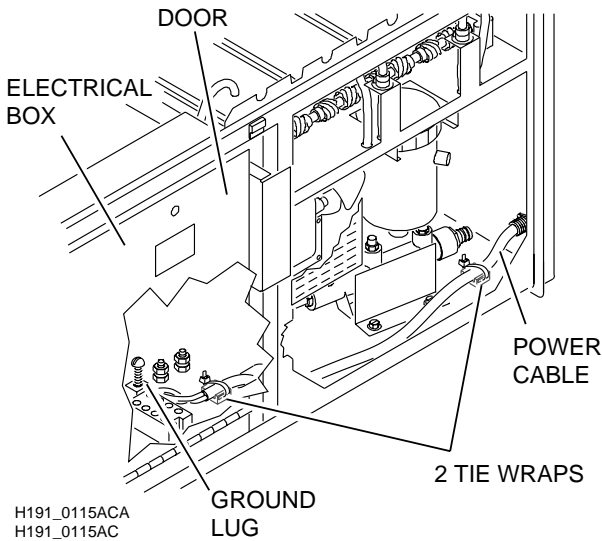
[8] Tighten the CAP of the STRAIN RELIEF ASSEMBLY.



H191_0132GCA
H191_0132GC

[9] Use the following table to connect the wires of the POWER CABLE to TB1:

AC wall power	TB1-L1	TB1-L2	TB1-N
100/200 V AC, 120/208 V AC, 127/220 V AC or 120/240 V AC	Yes	Yes	No
220/380 V AC, 230/400 V AC, or 240/415 V AC	Yes	No	Yes

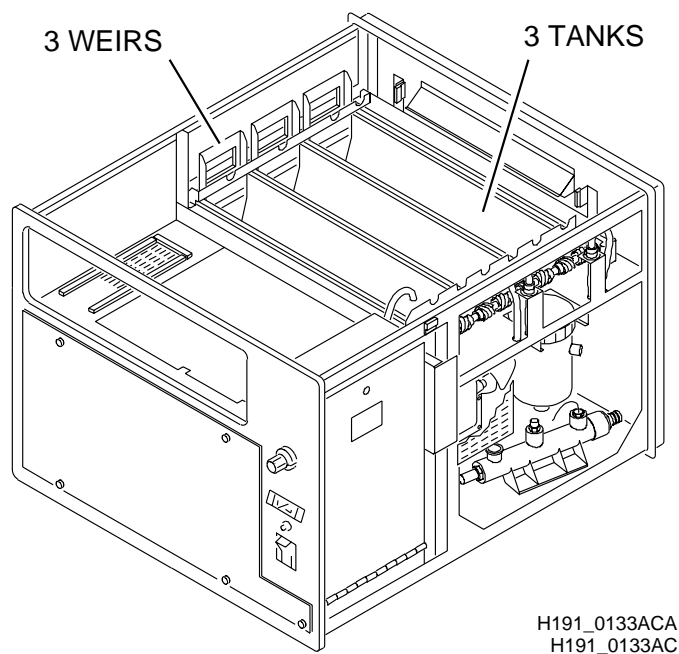


H191_0115ACA
H191_0115AC

- [10] Connect the ground wire to the GROUND LUG.
- [11] Install the 2 TIE WRAPS to the POWER CABLE.
- [12] Close the DOOR on the ELECTRICAL BOX.

Preparing the PROCESSOR

Checking the CLAMPS and TANKS



[1] Tighten all CLAMPS.

[2] Check:

- 3 WEIRS are correctly installed and seated
- TUBING is not bent

Note

The WEIRS are identified with colors:

- red for the developer
- blue for the fixer
- beige for the wash

[3] Fill the 3 TANKS with water.

Warning

Dangerous Voltage

[4] Connect the POWER CABLE to the AC wall power.

[5] Energize the PROCESSOR.

[6] Allow the PROCESSOR to operate for 5 minutes.

Warning

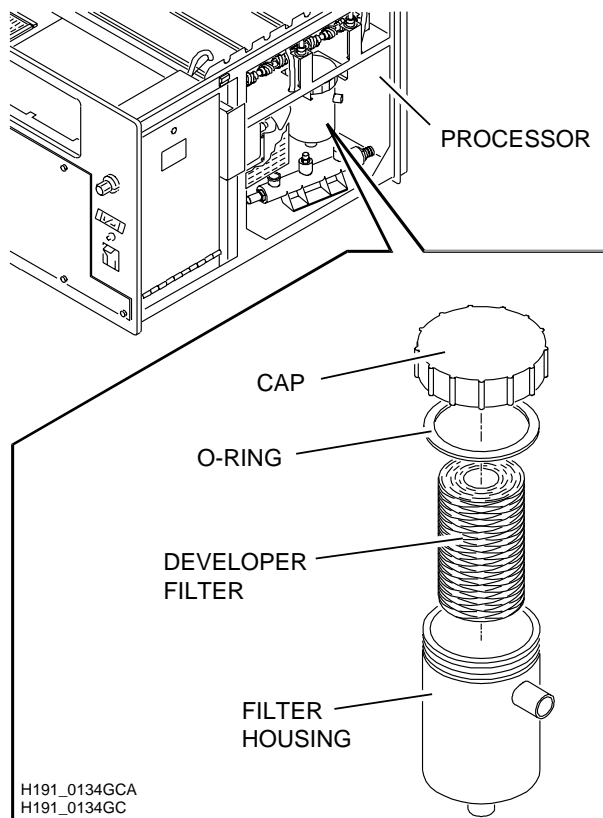
Dangerous Voltage

[7] De-energize the PROCESSOR.

[8] Check for leakage.

[9] Drain the 3 TANKS.

Filling the TANKS



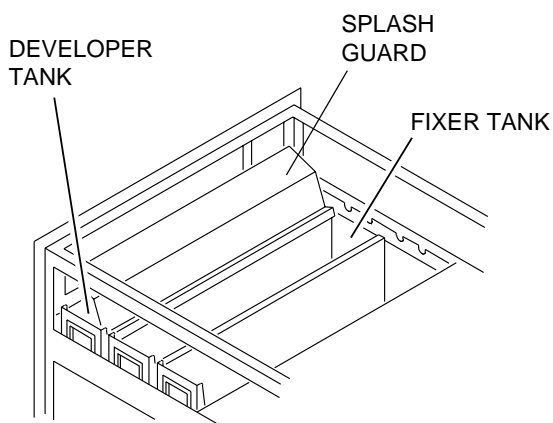
- [1] Soak the DEVELOPER FILTER in warm water for 30 seconds.



Important

The O-RING must be seated correctly in the CAP.

- [2] Assemble:
- FILTER HOUSING
 - DEVELOPER FILTER
 - O-RING
 - CAP
- [3] Install the FILTER HOUSING in the PROCESSOR.



H191_0116ACA
H191_0116AC

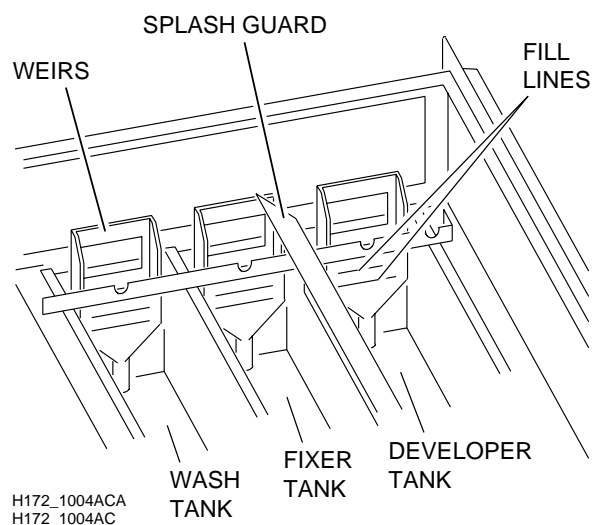
- [4] Install the SPLASH GUARD between the DEVELOPER TANK and the FIXER TANK.
- [5] Mix the developer solution first, then the fixer.



Caution

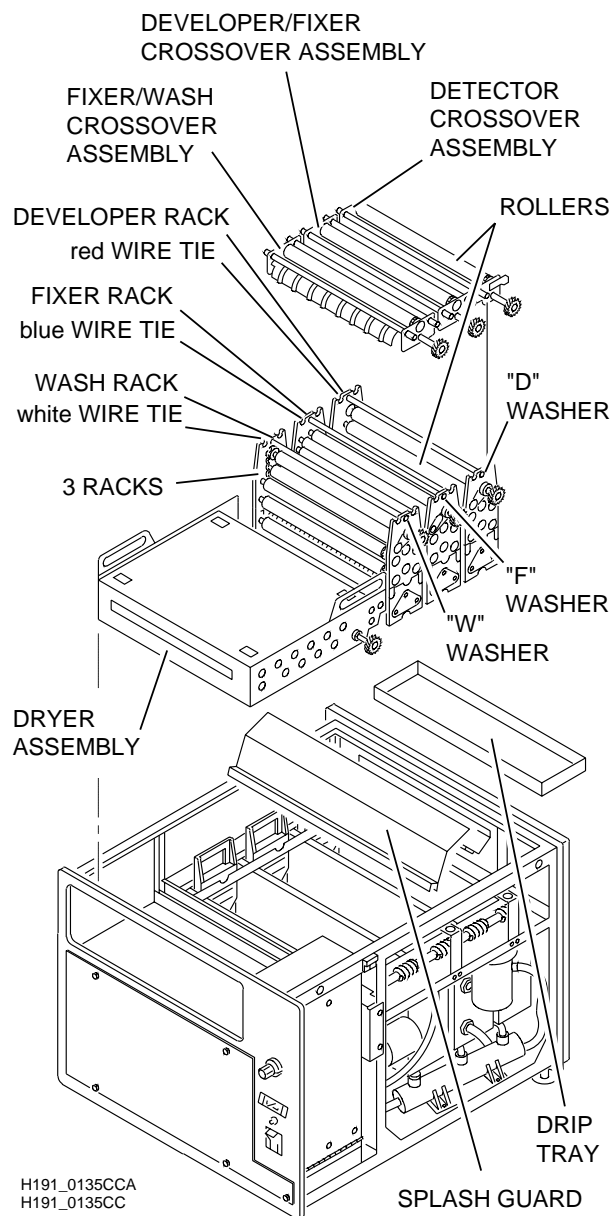
Prevent damage to equipment.

- [6] Rinse the mixing and filling equipment to prevent contamination of the solutions.
- [7] Mix the chemicals using the instructions included in the packages:
- *Kodak RP X-Omat DEVELOPER AND REPLENISHER*
 - *Kodak RP X-Omat FIXER AND REPLENISHER*
 - *Kodak RP X-Omat EX DEVELOPER AND REPLENISHER*
 - *Kodak Min-R LO FIXER - Europe only*



- [8] Add the solution of FIXER AND REPLENISHER to the FIXER TANK until the solution is at the higher FILL LINE on the blue WEIR.
- [9] Remove the SPLASH GUARD. Rinse with water.
- [10] Rotate and install the SPLASH GUARD on the FIXER TANK.
- [11] Fill the DEVELOPER TANK 1/2 full of DEVELOPER AND REPLENISHER.
- [12] Add 380 mL (13 fl oz) of the *Kodak RP X-Omat* DEVELOPER STARTER for MAMMOGRAPHY.
- [13] Fill the DEVELOPER TANK to the lower FILL LINE on the red WEIR with DEVELOPER AND REPLENISHER.
- [14] Remove the SPLASH GUARD. Rinse with water.

Installing the RACKS



[1] Wash with warm water:

- DEVELOPER RACK
- FIXER RACK
- WASH RACK
- DEVELOPER/FIXER CROSSOVER ASSEMBLY
- DETECTOR CROSSOVER ASSEMBLY
- FIXER/WASH CROSSOVER ASSEMBLY

[2] Manually rotate the ROLLERS on all RACKS to check that the ROLLERS rotate freely.



Caution

- Prevent contamination and spills.
- The 3 RACKS are identified with a letter on the WASHER and a color on the WIRE TIE:
 - “D” for the DEVELOPER RACK - red
 - “F” for the FIXER RACK - blue
 - “W” for the WASH RACK - white

[3] Slowly and carefully install the 3 RACKS. Use:

- DRIP TRAY
- SPLASH GUARD

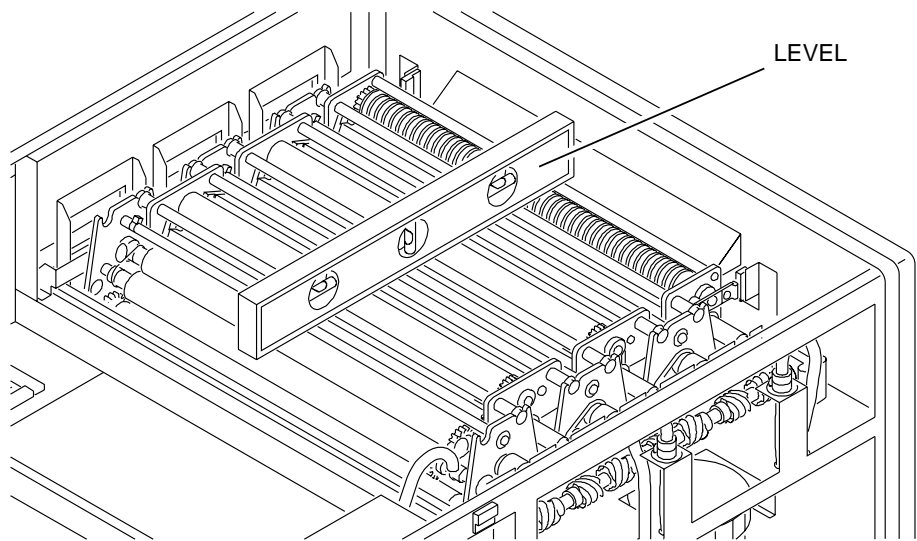
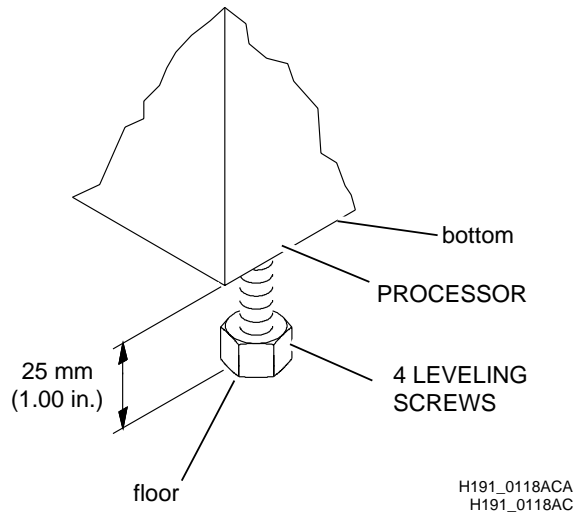
[4] Check that the RACKS are seated correctly.

[5] Install:

- DEVELOPER/FIXER CROSSOVER ASSEMBLY
- FIXER/WASH CROSSOVER ASSEMBLY
- DETECTOR CROSSOVER ASSEMBLY
- DRYER ASSEMBLY

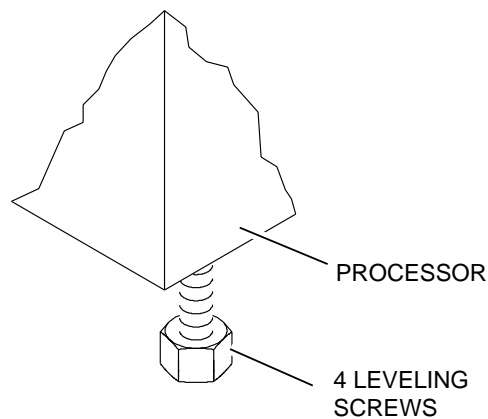
Leveling the PROCESSOR

- [1] Rotate the 4 LEVELING SCREWS to set the PROCESSOR height to 25 mm (1.00 in.) from the floor to the bottom of the PROCESSOR.



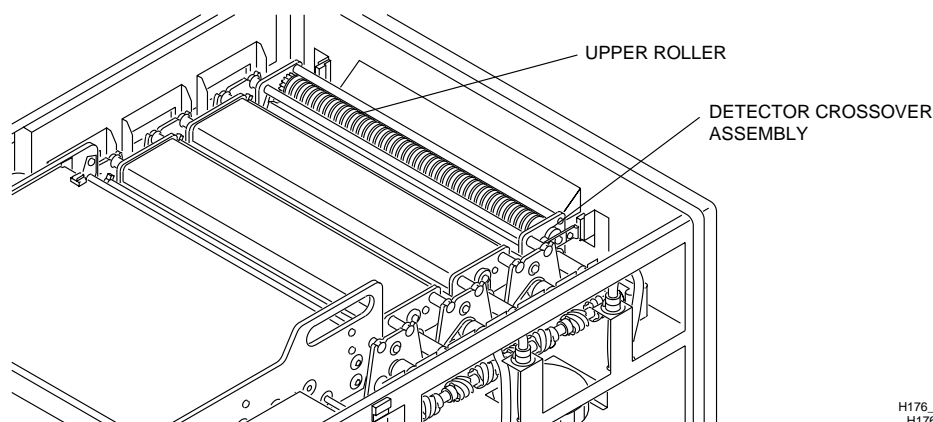
- [2] Use the LEVEL TL-1434 to check if the PROCESSOR is leveled.

- [3] Is the PROCESSOR leveled?



Yes	No
Continue with Checking the Replenishment Rates .	a. Rotate the corresponding 4 LEVELING SCREWS until the PROCESSOR is leveled. b. Continue with Checking the Replenishment Rates .

Checking the Replenishment Rates



H176_0019BCA
H176_0019BC



Warning

Dangerous Voltage

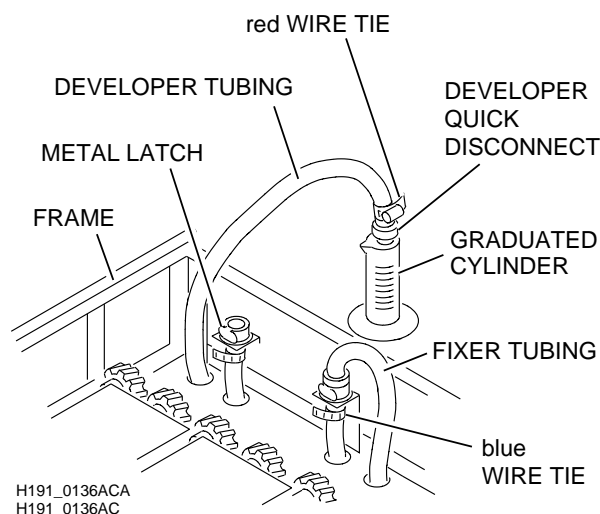
- [1] Energize the PROCESSOR.



Warning

Use eye protection. The replenishment solutions might spill.

- [2] Lift the UPPER ROLLER of the DETECTOR CROSSOVER ASSEMBLY to start the replenishment.



H191_0136ACA
H191_0136AC

- [3] Check that the replenishment solutions move freely through the DEVELOPER and FIXER TUBINGS.

- [4] Release the UPPER ROLLER to stop the REPLENISHMENT PUMP.



Important

The DEVELOPER QUICK DISCONNECT is identified with a red WIRE TIE.

- [5] Press the METAL LATCH to disconnect the DEVELOPER QUICK DISCONNECT.
- [6] Pull the DEVELOPER TUBING a minimum distance.
- [7] Rotate the DEVELOPER TUBING by the edge of the FRAME and into the GRADUATED CYLINDER.

- [8] Use SERVICE BULLETIN 30, 632661 to obtain the correct replenishment rate.

- [9] Lift the UPPER ROLLER of the DETECTOR CROSSOVER ASSEMBLY for 14 seconds.

- [10] Is the replenishment rate correct?

Yes	No
Continue with Step 11.	Advance to “Adjusting the REPLENISHMENT PUMP” on Page 52.

- [11] Connect the DEVELOPER QUICK DISCONNECT by pressing it into the METAL LATCH until the DEVELOPER TUBING snaps in position.



Important

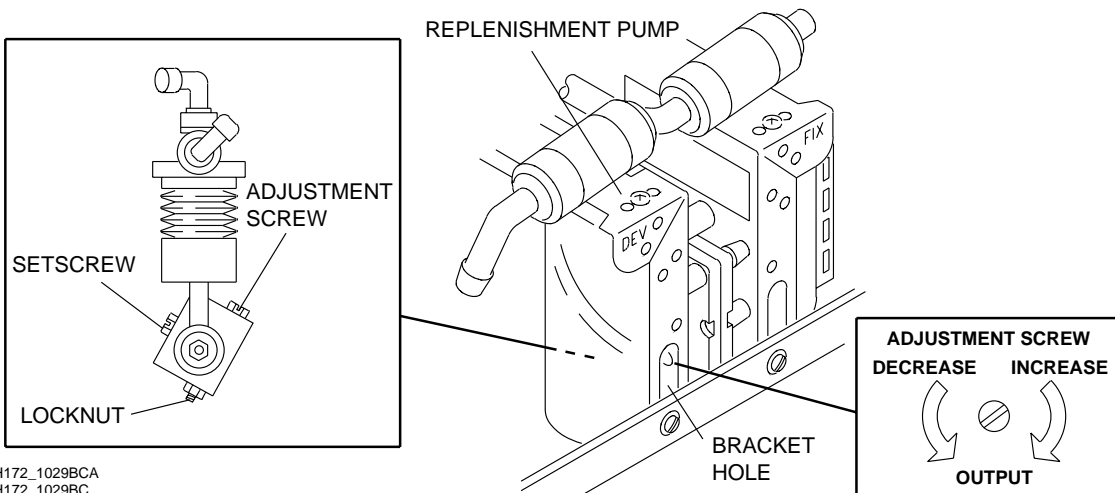
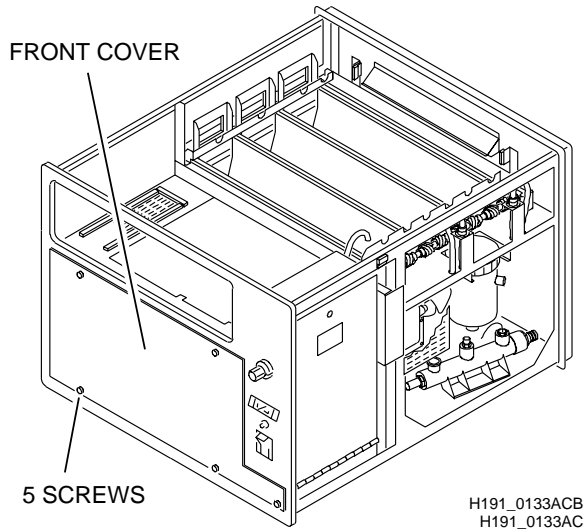
The FIXER TUBING is identified with a blue WIRE TIE.

- [12] Check the replenishment rate of the fixer solution by doing Steps 5 - 10 again with the FIXER TUBING.

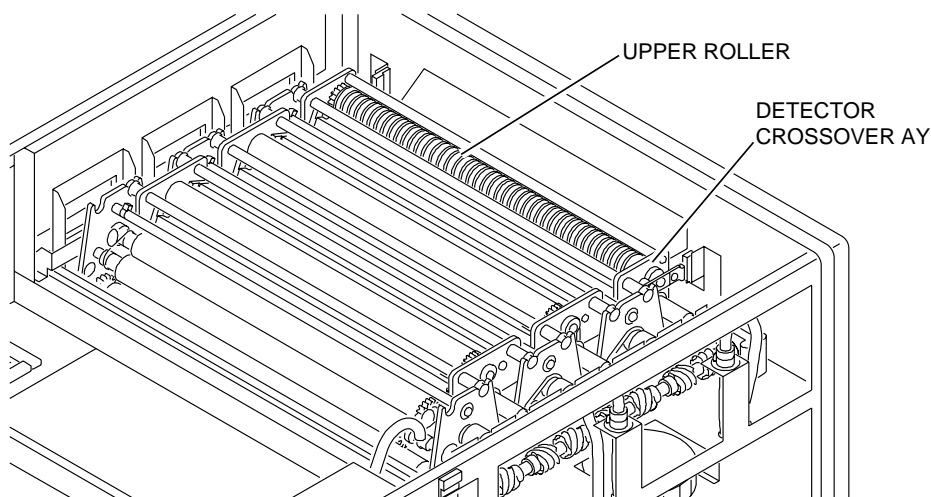
Adjusting the REPLENISHMENT PUMP

[1] Remove:

- 5 SCREWS
- FRONT COVER



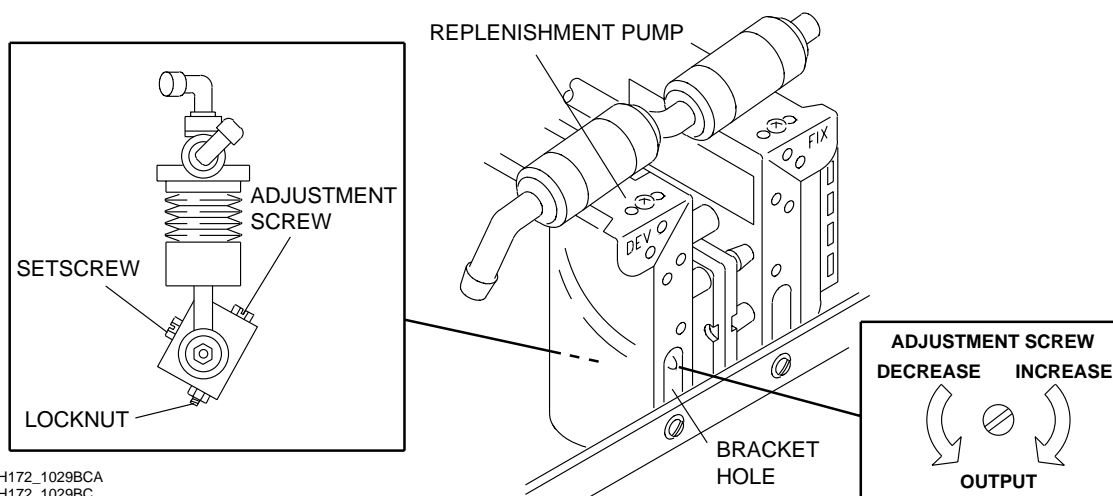
[2] Check that the ADJUSTMENT SCREW is visible through the BRACKET HOLE.



H176_0022BCA
H176_0022BC

[3] Is the ADJUSTMENT SCREW visible?

Yes	No
Continue with Step 4.	<p>a. Lift the UPPER ROLLER of the DETECTOR CROSSOVER ASSEMBLY to operate the REPLENISHMENT PUMP until the ADJUSTMENT SCREW is visible.</p> <p>b. Continue with Step 4.</p>



H172_1029BCA
H172_1029BC



Caution

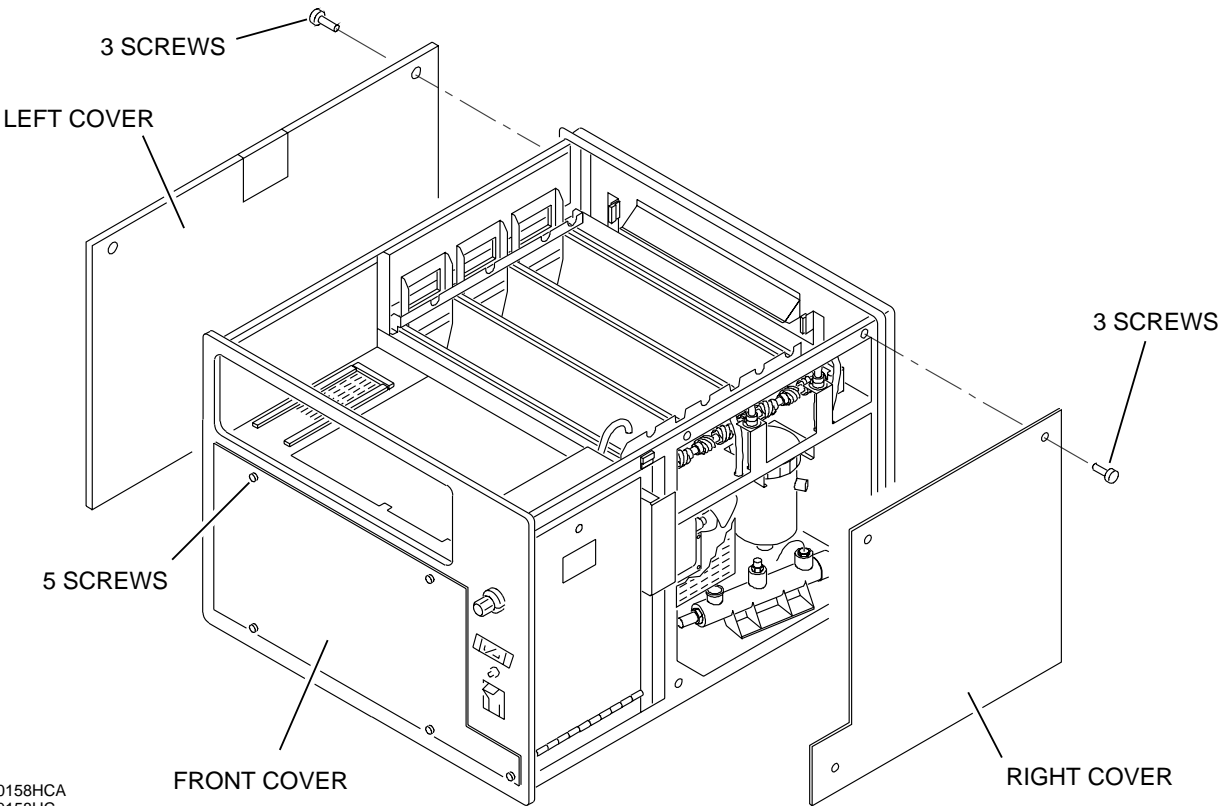
Do not adjust the LOCKNUT.

[4] Loosen the SETSCREW.

[5] Rotate the ADJUSTMENT SCREW to change the flow rate:

- clockwise to increase
- counterclockwise to decrease

[6] Tighten the SETSCREW.



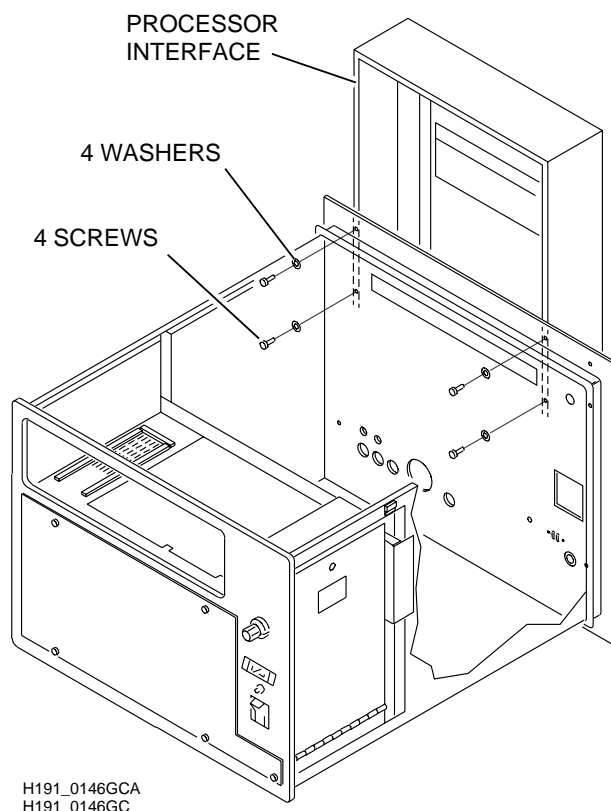
H191_0158HCA
H191_0158HC

- [7] Install:
- FRONT COVER
 - 5 SCREWS
 - LEFT COVER
 - 3 SCREWS
 - RIGHT COVER
 - 3 SCREWS

[8] Do:

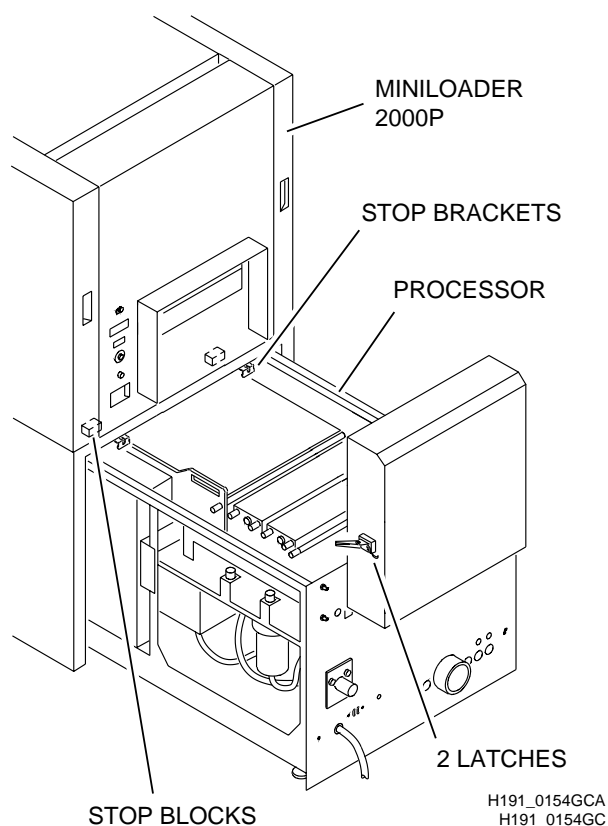
Procedure	Page
Checking the Replenishment Rates	51

Installing the MINILOADER 2000P to the PROCESSOR

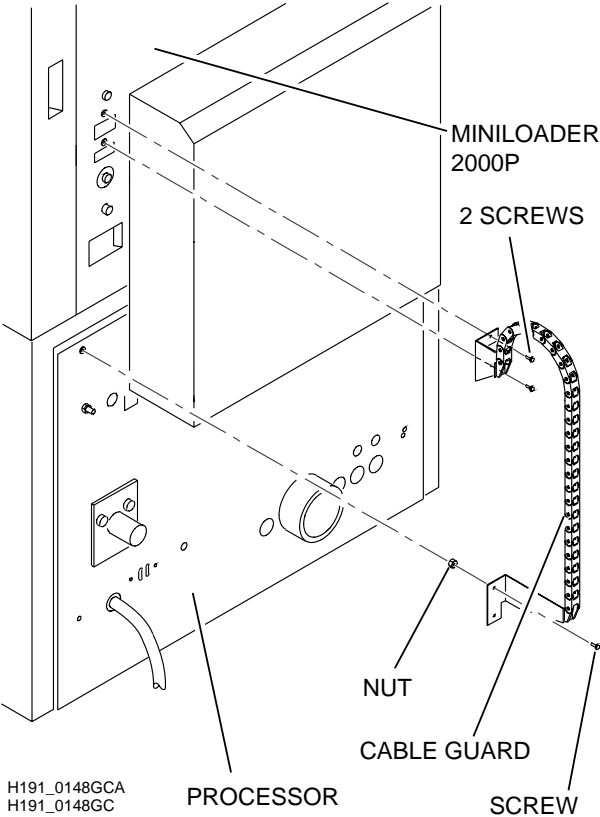


[1] Install:

- PROCESSOR INTERFACE
- 4 WASHERS
- 4 SCREWS



- [2] Lift the MINILOADER 2000P until the STOP BRACKETS are beyond the STOP BLOCKS of the PROCESSOR.
- [3] Install the MINILOADER 2000P on the PROCESSOR.
- [4] Connect the 2 LATCHES to the MINILOADER 2000P.
- [5] Install the PROCESSOR FRONT COVER.
- [6] Tighten the 2 SCREWS.

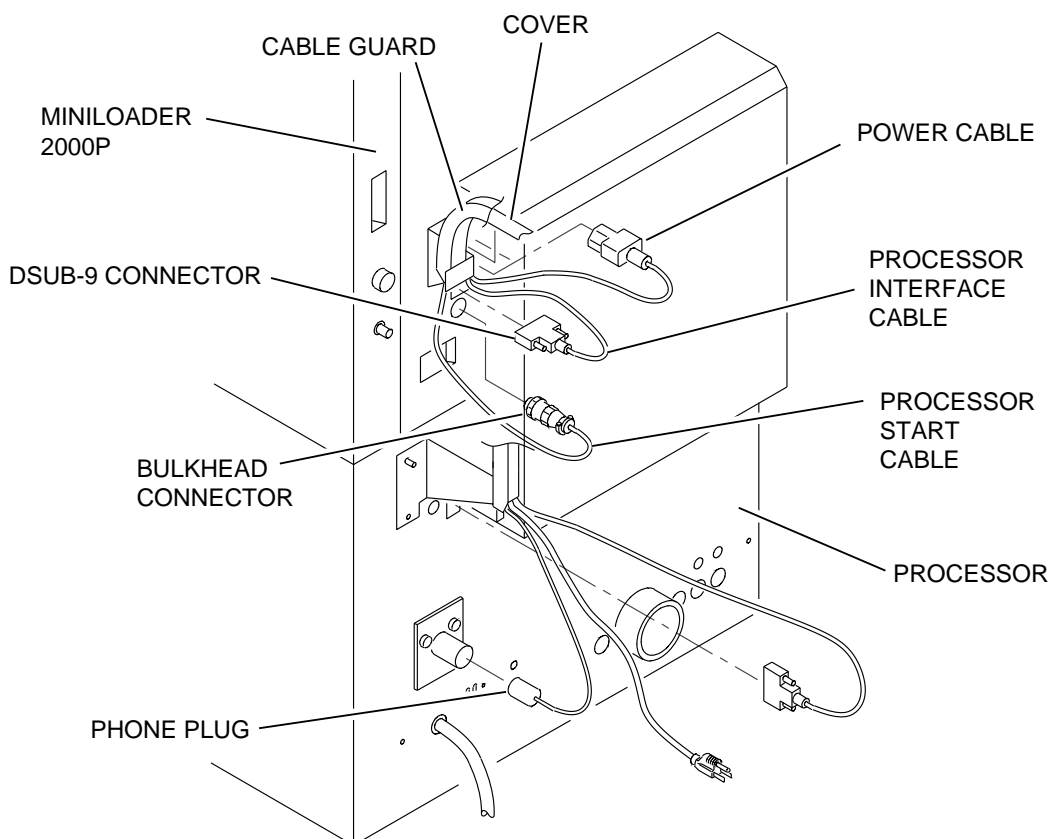


Important

The CABLE GUARD must be installed.

- [7] Install:
- CABLE GUARD to the MINILOADER 2000P
 - 2 SCREWS
- [8] Remove the SCREW from the PROCESSOR.
- [9] Install from the installation kit:
- CABLE GUARD to the PROCESSOR
 - NUT
- [10] Install the SCREW from Step [8](#).
- [11] Move the MINILOADER from the PROCESSOR to check that the operation of the CABLE GUARD is correct.
- [12] Is the operation of the CABLE GUARD correct?

Yes	No
Continue with Step 13 .	a. Diagnose the problem. b. Continue with Step 13 .



H191_0149HCA
H191_0149HC

[13] Connect to the MINILOADER 2000P:

- BULKHEAD CONNECTOR of the PROCESSOR START CABLE
- DSUB-9 CONNECTOR of the PROCESSOR INTERFACE CABLE
- POWER CABLE

[14] Remove the COVER from the CABLE GUARD.



Warning

- You must install all CABLES into the CABLE GUARD to protect the CABLES when the MINILOADER 2000P is moved from the PROCESSOR.
- You must install a TIE WRAP to the end of the CABLE GUARD.

[15] Install into the CABLE GUARD:

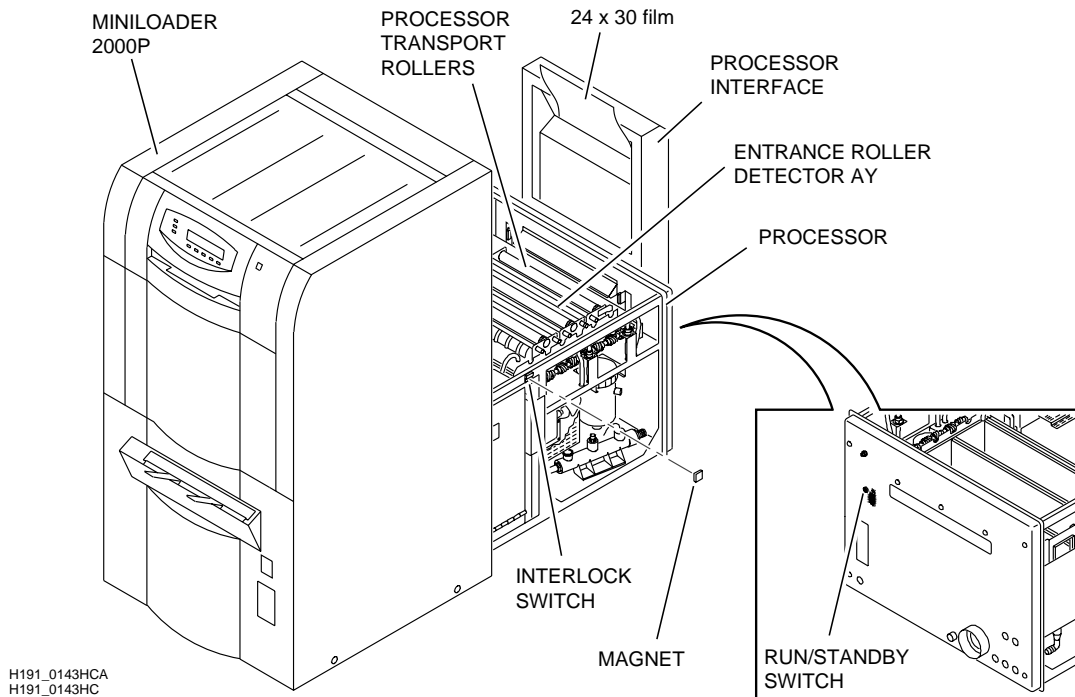
- PROCESSOR START CABLE
- PROCESSOR INTERFACE CABLE
- POWER CABLE
- COVER
- TIE WRAP

[16] Connect:

- PHONE PLUG of the PROCESSOR START CABLE to the PROCESSOR
- DSUB-9 CONNECTOR of the PROCESSOR INTERFACE CABLE to the PROCESSOR
- POWER CABLE to the AC wall power

[17] Move the MINILOADER 2000P from the PROCESSOR to check the operation of the CABLE GUARD.

Setting "The Time to Feed 24 cm"



Warning

Dangerous Voltage

- [1] Energize the MINILOADER 2000P.
- [2] With the MINILOADER 2000P moved from the PROCESSOR, install a MAGNET on the INTERLOCK SWITCH.



Warning

The PROCESSOR TRANSPORT ROLLERS rotate when the RUN/STAND-BY SWITCH is pressed and released.

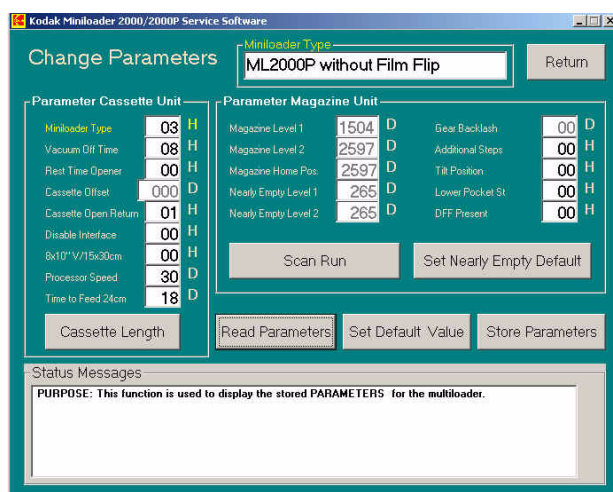
- [3] Press and release the RUN/STAND-BY SWITCH.
- [4] With the film in the direction of the film in the MAGAZINE, place a 24 x 30 film into the PROCESSOR INTERFACE.



Important

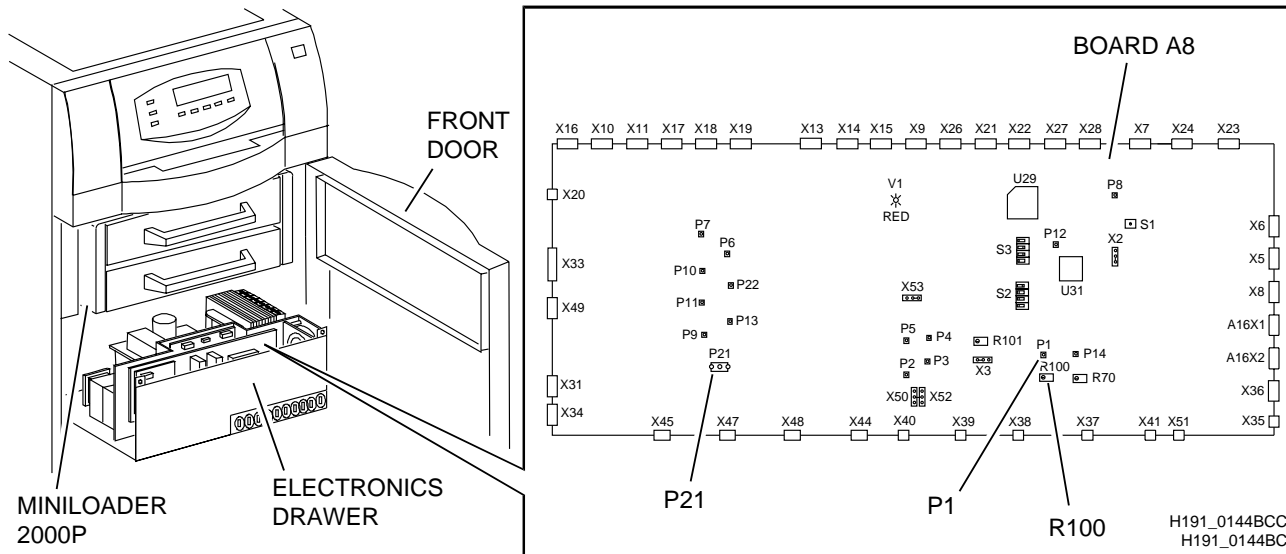
A beep sound indicates the film is beyond the ENTRANCE ROLLER DETECTOR AY.

- [5] With the leading edge of the film on the ENTRANCE ROLLER DETECTOR AY, observe the number of seconds for the trailing edge of the film to advance beyond the ENTRANCE ROLLER DETECTOR AY and until the beep sounds.



- [6] Connect the LAPTOP COMPUTER to the MINILOADER 2000P.
- [7] Double-click the “ML2000(P)” icon.
- [8] Click:
 - [Change Miniloader Data]
 - [Change Parameters]
- [9] In the “Change Parameters” screen, type the number of seconds observed into the “Time to Feed 24 cm” space.
- [10] Click [Store Parameters].
- [11] Remove the MAGNET.
- [12] Disconnect:
 - DATA CABLE
 - LAPTOP COMPUTER
- [13] Continue with [Setting the PROCESSOR INTERFACE SENSOR B9](#).

Setting the PROCESSOR INTERFACE SENSOR B9



[1] Open:

- FRONT DOOR of the MINILOADER 2000P
- ELECTRONICS DRAWER

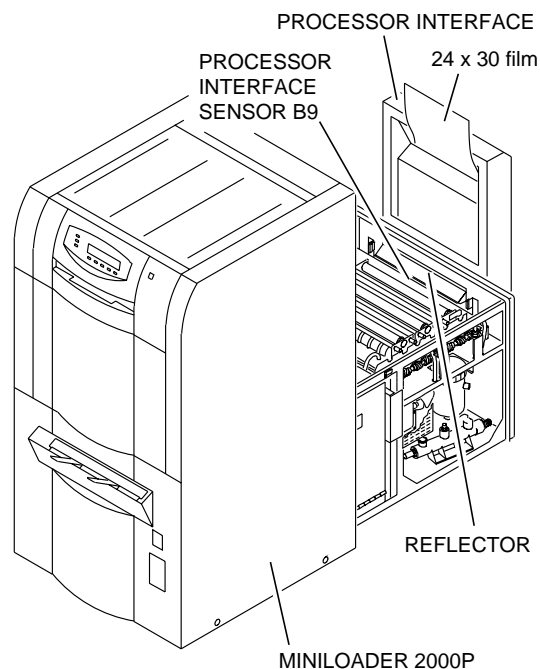
[2] Use the DVM set to mV DC and connect the “+” end to P1 and the “-” end to P21 of the BOARD A8.



Important

The position of the PROCESSOR INTERFACE SENSOR B9 might have to be adjusted or the REFLECTOR might have to be cleaned if R100 cannot be adjusted to <500 mV DC.

[3] Adjust R100 to <500 mV DC.



[4] Move the MINILOADER 2000P from the PROCESSOR.

[5] Place a new 24 x 30 cm film into the PROCESSOR INTERFACE until it blocks the PROCESSOR INTERFACE SENSOR B9.

[6] Check that the DVM displays 3.5 V DC or higher.

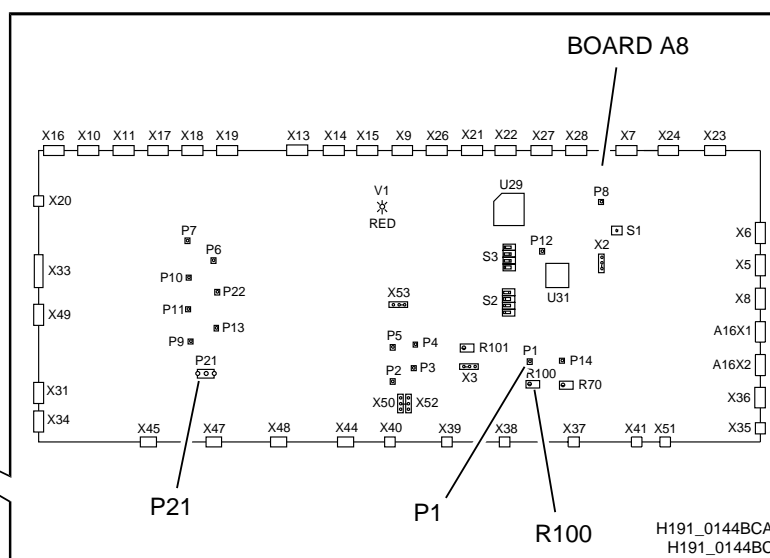
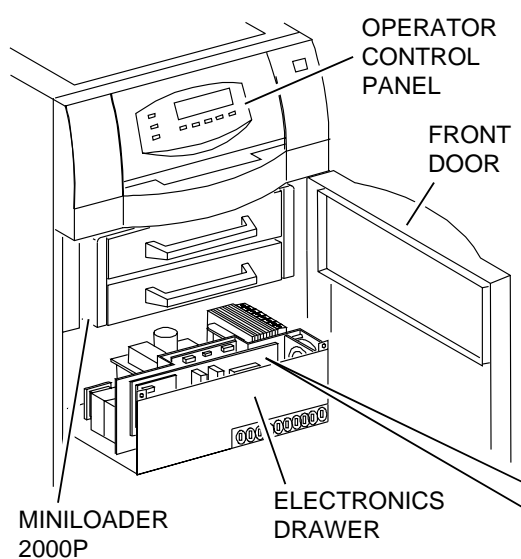
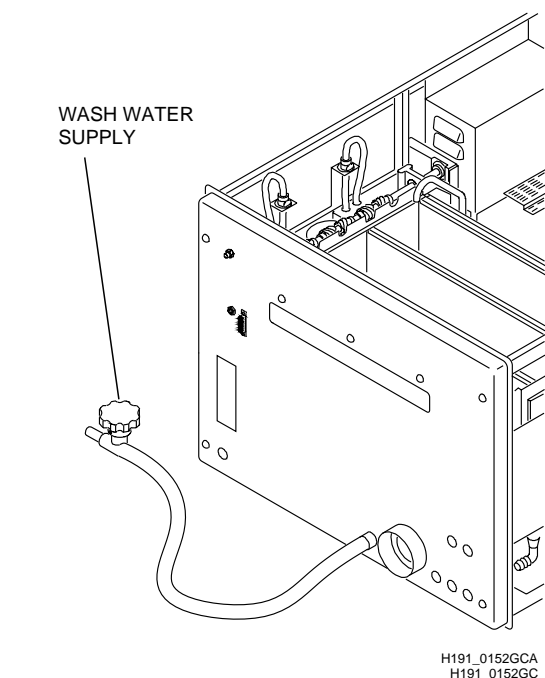
[7] Is the voltage correct?

Yes	No
Continue with Doing the Checkout for the PROCESSOR .	<p>a. Remove the film.</p> <p>b. Adjust R100 to a higher value but not to exceed 500 mV DC.</p> <p>c. Do Steps 5 - 7 again.</p>

H191_0145GCA
H191_0145GC

Doing the Checkout for the PROCESSOR

[1] Start the WASH WATER SUPPLY.



Warning

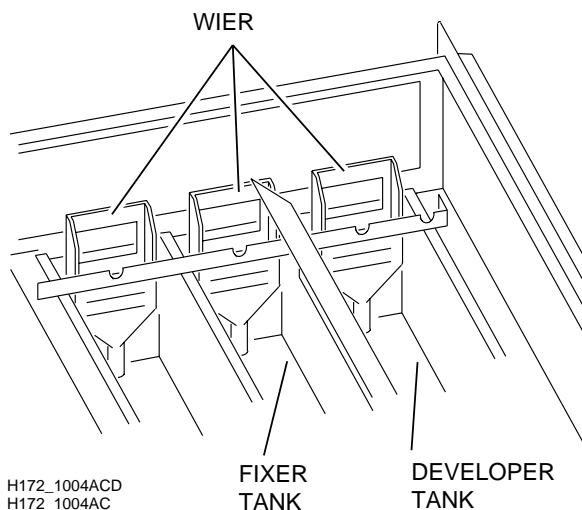
- Dangerous Voltage
- The PROCESSOR must be de-energized.

[2] Energize the MINILOADER 2000P.

[3] Check that the OPERATOR CONTROL PANEL of the MINILOADER 2000P displays the message "PROCESSOR NOT READY".

[4] Does the correct message display?

Yes	No
Continue with Step 5 .	a. Open the ELECTRONICS DRAWER. b. Set SWITCH S2-2 of the BOARD A8 to "ON". c. Continue with Step 5 .



Warning

Dangerous Voltage

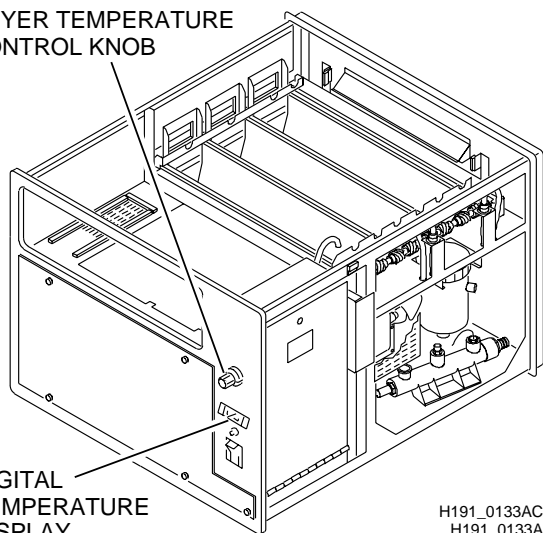
[5] Energize the PROCESSOR.

[6] Check:

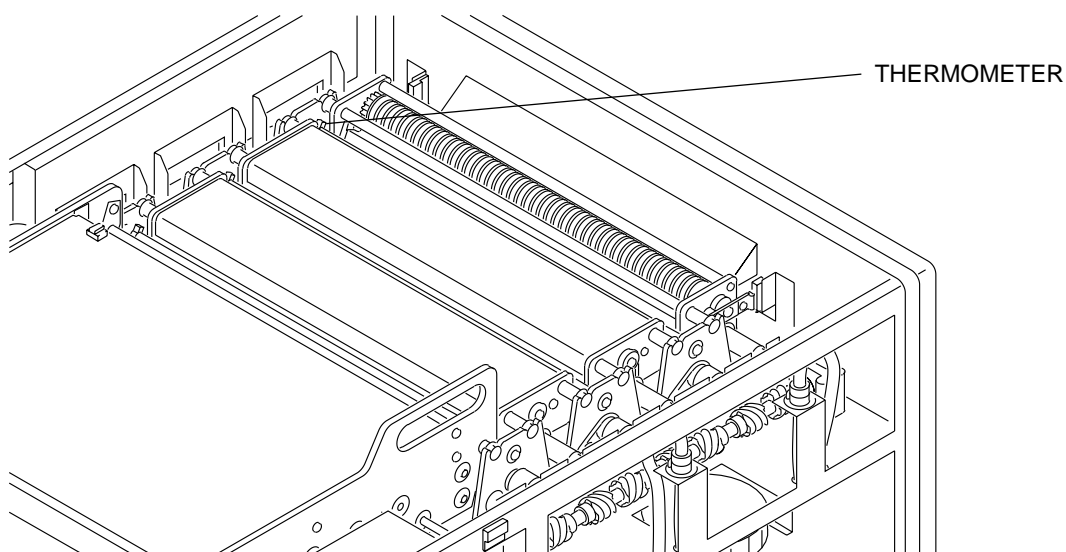
- DEVELOPER and FIXER TANKS for correct agitation
- water flow in the PROCESSOR
- no leakage of water or solutions
- solution flow in the WEIRS

DRYER TEMPERATURE
CONTROL KNOB

DIGITAL
TEMPERATURE
DISPLAY

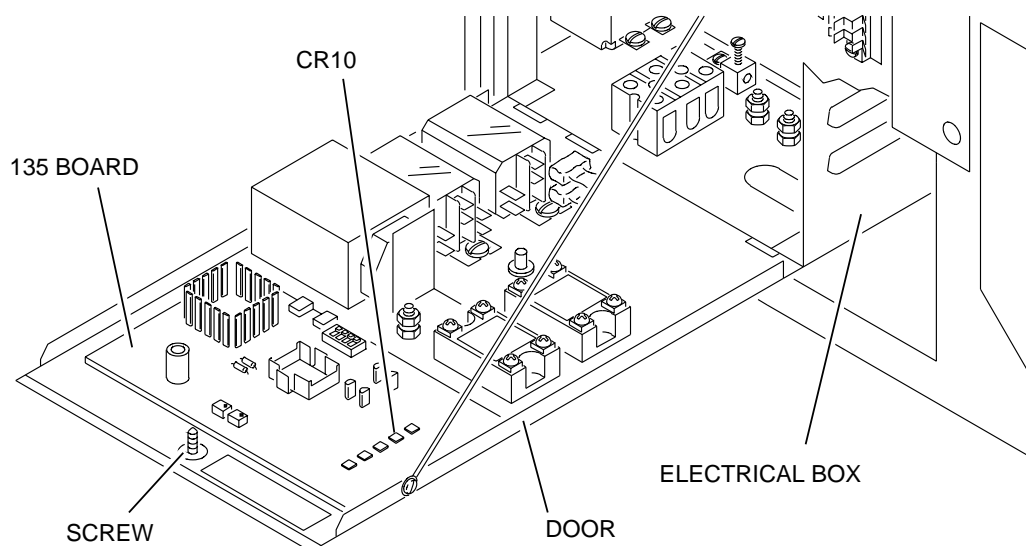


[7] Adjust the DRYER TEMPERATURE CONTROL KNOB to the lowest possible temperature.



H172_1006BCB
H172_1006BC

- [8] Insert a reliable THERMOMETER into the solution of the PROCESSOR.



H191_0137BCC
H191_0137BC

- [9] Loosen the SCREW.
 [10] Open the DOOR of the ELECTRICAL BOX.
 [11] Wait until CR10 on the 135 BOARD blinks for 2 minutes.
 [12] Use the following table to check that the THERMOMETER is at the correct temperature.

Cycle	Temperature
"Standard"	$33.3 \pm 0.3^{\circ}\text{C}$ ($92.0 \pm 0.5^{\circ}\text{F}$)
"Rapid"	$34.4 \pm 0.3^{\circ}\text{C}$ ($94.0 \pm 0.5^{\circ}\text{F}$)

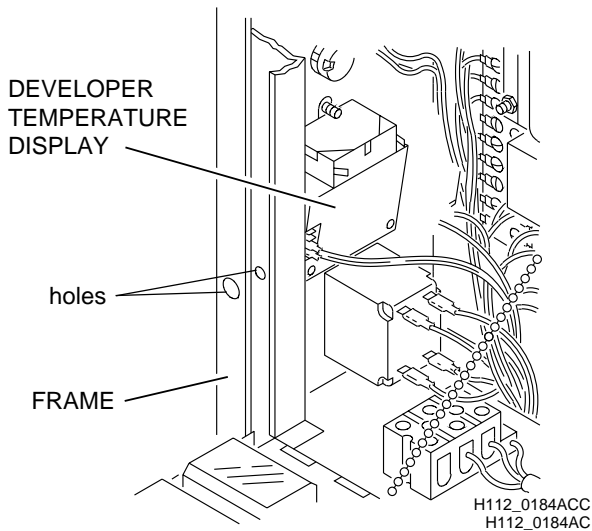
- [13] Is the THERMOMETER at the correct temperature?

Yes	No
Continue with Step 14 .	Advance to "Setting the Developer Temperature" on Page 65 .

- [14] Check that the temperature on the DEVELOPER TEMPERATURE DISPLAY matches the temperature on the THERMOMETER.

[15] Is the temperature on the DEVELOPER TEMPERATURE DISPLAY correct?

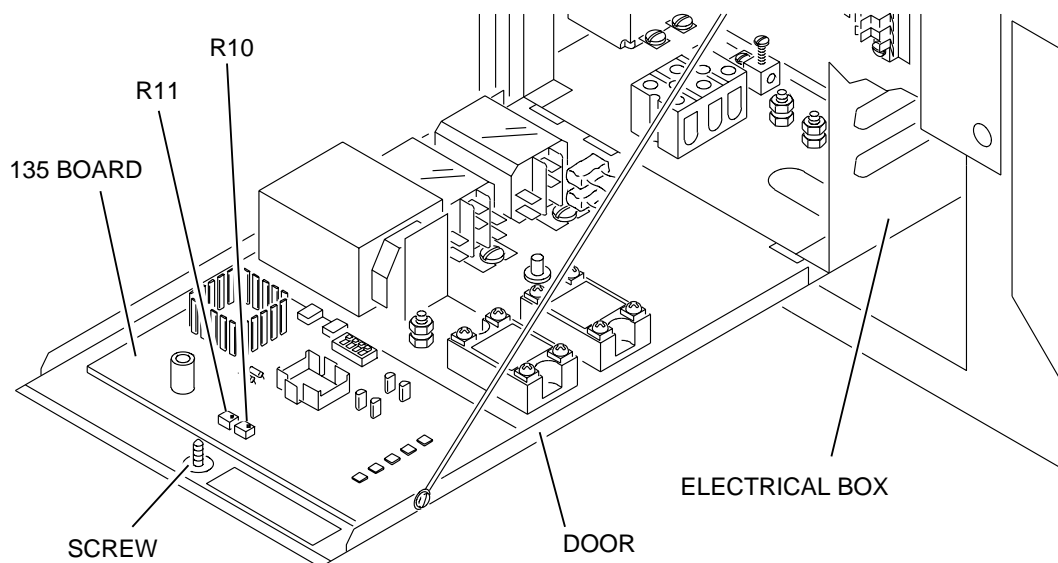
yes	No
Advance to “Doing the Checkout for the PROCESSOR” on Page 61.	Continue with Step 16.



[16] Use the POTENTIOMETER ADJUSTMENT TOOL TL-1481 and insert it through the holes in the FRAME of the ELECTRICAL BOX.

[17] Rotate TL-1481 to adjust the DEVELOPER TEMPERATURE DISPLAY to the temperature on the THERMOMETER.

Setting the Developer Temperature



H191_0137BCA
H191_0137BC

- [1] Loosen the SCREW.
- [2] Open the DOOR of the ELECTRICAL BOX.



ESD

Possible damage from electrostatic discharge.

- [3] On the 135 BOARD, rotate:
 - R10 for “Standard Cycle ”
 - clockwise to increase the temperature
 - counterclockwise to decrease the temperature
 - R11 for “Rapid Cycle ”
 - clockwise to increase the temperature
 - counterclockwise to decrease the temperature
- [4] With the MINILOADER 2000P rolled over the PROCESSOR and latched, allow the developer solution to reach a stable temperature.
- [5] Do:

Procedure	Steps
“Doing the Checkout for the PROCESSOR” on Page 61	8 - 15

Checking the Operation of the PROCESSOR and the MINILOADER 2000P



Important

You must have all other equipment installed before checking the operation of the PROCESSOR and the MINILOADER 2000P.

[1] If necessary do:

Procedure	Publication No.
Installing the KODAK MINILOADER 2000P SEISMIC KIT 6F1646	6F1648
Installing the <i>Kodak</i> MINILOADER 2000P DARKROOM FILM FEEDER	4E8890



Warning

Dangerous Voltage

[2] If necessary, energize:

- MINILOADER 2000P
- PROCESSOR

[3] Load the 2 SUPPLY MAGAZINES of the MINILOADER 2000P with the corresponding size of film.

[4] Press "UNLOAD" on the OPERATOR CONTROL PANEL.

[5] Insert a 18 x 24 cm CASSETTE or a 24 x 30 cm CASSETTE loaded with film into the MINILOADER 2000P.

[6] Check that the film is removed from the CASSETTE and the film exits the PROCESSOR without error codes.

[7] Did the film feed without error codes?

Yes	No
Continue with Step 7 .	a. Use diagnostics to correct the error code. b. Do Steps 3 - 6 again.

[8] Insert a empty 18 x 24 cm CASSETTE or a empty 24 x 30 cm CASSETTE into the MINILOADER 2000P.

[9] Press "LOAD" on the MINILOADER 2000P OPERATOR CONTROL PANEL.

[10] Check that the MINILOADER 2000P loaded the CASSETTE with the correct size of film without error codes.

[11] Did the CASSETTE load without error codes?

Yes	No
Continue with Step 11 .	a. Use diagnostics to correct the error code. b. Do Steps 7 - 10 again.

[12] Insert a 18 x 24 cm CASSETTE or a 24 x 30 cm CASSETTE loaded with film into the MINILOADER 2000P.

[13] Check that the film from the CASSETTE loaded into the PROCESSOR and the CASSETTE is loaded with a new film from the SUPPLY MAGAZINE without error codes.

[14] Did the MINILOADER 2000P and the PROCESSOR operate without error codes?

Yes	No
Continue with Step 15 .	a. Use diagnostics to correct the error code. b. Do Steps 11 - 14 again.

[15] Select "Serial Unload" at the OPERATOR CONTROL PANEL of the MINILOADER 2000P.

[16] Insert a SUPPLY MAGAZINE loaded with film into the MINILOADER 2000P.

[17] After you feed 10 films from the SUPPLY MAGAZINE, check that the films exit the PROCESSOR and are not on top of one another.

[18] Did the films exit the PROCESSOR correctly?

Yes	No
The MINILOADER 2000P and the PROCESSOR installation is complete.	a. Do: <ul style="list-style-type: none"> • Setting the "Parameters" and check that "Disable Interface" is set to "00" • Setting "The Time to Feed 24 cm" b. Use diagnostics to correct the error code. c. Do Steps 15 - 18 again.

**Warning**

You must check that all the PANELS and COVERS are correctly installed and the ground wires connected.

Publication History

Publication Date	Publication No.	ECO No.	Changed Pages	File Name	Notes
18DEC03	II3477-2	---	All	ii3477_2.fm	New Publication
09FEB04	II3477-2	---	26, 27, 41, 43, 44, 56 and 66	ii3477_2.fm	Revised

Kodak, Min-R and X-Omat are trademarks.

Printed in U.S.A. • ii3477_2.fm

EASTMAN KODAK COMPANY
Rochester, NY 14650

HEALTH IMAGING